Abt JTA Submission: The business of aid in the Indo-Pacifc

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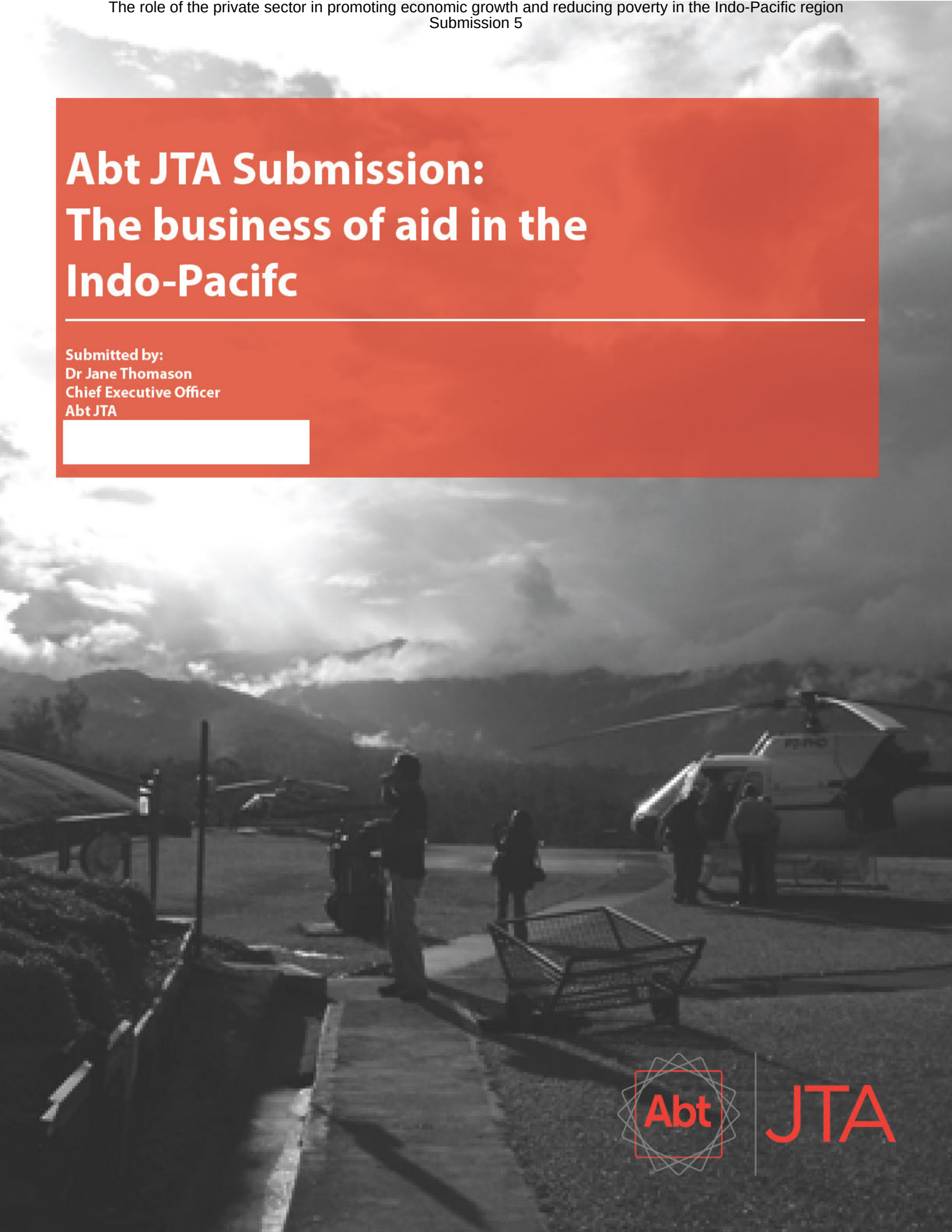

The Business of Aid in the Indo-Pacific

"Lifting people out of poverty and giving them hope of a self-sufficient and sustainable future may be achieved by using new combinations of traditional aid and private sector engagement"

(Dr Sharman Stone)

INTRODUCTION

Abt JTA welcomes the opportunity to make a submission on "The Business of Aid in the Indo-Pacific." Abt JTA is an international health and social sector consulting firm specializing in operating in remote and challenging environments for clients in the international development sector and extractive industries. Abt JTA currently manages over $100 million of Department of Foreign Affairs and Trade (DFAT) contracts in Papua New Guinea, Fiji and Indonesia. Abt JTA has been an active voice for the complementary role that the private sector and business can play in pro-poor development. We are an active member of the Australia PNG Business Council Executive and regularly engage with business leaders and business for on how to more effectively link with development.

Abt JTA has long been an advocate for harnessing the economic benefits of mining into long term social benefit where the extractive industries are working among impoverished communities. Abt JTA has worked with the resource sector in Papua New Guinea, Indonesia, Mongolia and Philippines in identifying and delivering innovative pro-poor programs in partnership with the private sector. In Abt JTA's Australian National University (ANU) discussion paper on how to harness the mining sector to generate social benefits to resource poor communities, Matthew Hancock and Jane Thomason explore how this might be achieved (Attachment One). Also on the ANU DevPolicy we outlined ways in which the private sector can be engaged in pro-poor development in the health sector (Attachment Two).

These papers are provided for the Joint Standing Committee on Foreign Affairs, Defence and Trade to review. Rather than restating the content of these papers, we make relatively brief comment on some of the key terms of reference for the Foreign Affairs and Aid Sub-committee.

CONSTRAINTS FOR PRIVATE SECTOR TO ENGAGE IN DEVELOPMENT

There are a number of institutional, social and policy constraints that may reduce the ability of the private sector agencies to engage in development. These include:

- Historically there has been reluctance on the part of the Australian Aid Program to recognise the private sector as a legitimate partner in international development.
- There has been a lack of clear framework that supports collaboration.
- There has been a lack of economic incentives for collaboration.
- There has been a lack of political commitment to collaboration.
- There has been no clear vision for how and where the private sector can engage in development.

MECHANISMS FOR ENHANCING THE PRIVATE SECTOR ROLE IN DEVELOPMENT

There are many additional partnerships activities or financial instruments the Australian Government could use to enhance the role of the private sector in development in the Indo- Pacific Region. Some of the instruments that could be considered to engage the private sector more actively include:

- Competitive grants for innovators are employing complex systems approaches to rethink and improve development
- Collaborative enterprises to address 'global public goods' such as environmental issues and disease threats using aid, trade, and financial flows
- Facilitating investment and knowledge transfers financed by borrowing
- Facilitating investments focused on growth and job creation
- Development of domestically owned companies
- Enabling countries to enact regulations that are more encouraging of the private sector
- Improve access to capital to support private health care enterprises
- Challenge Funds:
    - HANSHEP Health Innovations in Africa Challenge Fund is a mechanism for identifying and investing in innovative social enterprises in a competitive way. Challenge funds typically target innovative early-stage enterprises, and as such often provide a large number of relatively small investments (typically in the form of grants) as compared to other investment vehicles (e.g., private equity funds). A pro-poor challenge fund such as the HANSHEP could have objectives to:
        - Identify, surface, and test new models for serving the health needs of the poor with an emphasis on women and girls
        - Support and scale promising Maternal and Child Health and Family Planning) models
        - Increase the pipeline of investable health opportunities which can feed into larger capital sources downstream
    - The USAID Grand Challenges for Development, is an alternative model which invites innovators to submit ideas to help solve problems like HIV or hunger. The agency has financed nearly 100 products under the program, among them the Pratt Pouch, a ketchup-sized packet of anti-AIDS drugs that does not need refrigeration. The pouch, developed by students and faculty at Duke University, is being used in Zambia and Ecuador and could potentially prevent the transmission of HIV to 400,000 babies a year, according to the agency.
- Broker deals with insurance companies and superannuation funds to help finance development projects.
- Finance private sector programs like USAID's flagship initiative in private sector health, Strengthening Health Outcomes through the Private Sector (SHOPS). It works to involve non-governmental organisations and for-profit entities in addressing the many health needs of people in developing

countries. SHOPS focuses on increasing availability, improving quality, and expanding coverage of essential health products and services in family planning and reproductive health, maternal and child health, HIV and AIDS, and other health areas through the private sector.

A relevant example for PNG of a private sector program is the service delivery model pioneered by the Abt-led Market-based Partnerships for Health (MBPH) project in the state of Karnataka in southwest India. The model aims to identify unreported tuberculosis (TB) patients and improve the quality of their diagnosis and treatment through engagement of private health care providers. It promotes evidence-based investigations, appropriate treatment, and provision of care and support where needed. Through a combination of training private health care providers, conducting door-to-door outreach, and holding meetings in community centers and tea houses, MBPH successfully raised awareness of TB prevalence, prevention, and treatment in Karnataka. MBPH interventions improved health seeking behavior for TB from 56 percent to 88 percent, and contributed to a decrease in perceived stigma. Sputum microscopy, as reported by India's national TB control program, increased by over 80 percent, and TB notification increased by over 40 percent.

THE ROLE OF PUBLIC PRIVATE PARTNERSHIPS IN LEVERAGING PRIVATE SECTOR INVESTMENT IN DEVELOPING COUNTRIES

Public-private partnerships (PPP) can harness private financing and expertise in order to achieve public policy goals. The PPP model may provide a means for the Australian aid program to provide support for major hospitals in PNG in a manner that ensures provision of quality services over time. An example from Lesotho with a PPP project for the nation's referral hospital is provided in Attachment Three. Whilst recent studies have expressed concern on the level of investment by the host government in the Lesotho PPP, PPPs can support government's key policy goals by:

- Making capital expenditures affordable in the near term;
- Providing Government budget stability through defined and predictable health expenditures;
- Transferring risk to the private sector for construction delays or cost overruns for a large and complex building project;
- Transferring significant operational risk for the delivery of complex health care services, while capturing the efficiencies of private sector management; and
- Providing an economic engine for growth for locally owned businesses.

DFAT, in conjunction with International Finance Corporation, could fund technical assistance for financial advice for the Government and other areas required to finalize the highly structured contract agreement and support a partnership broker or lead role in the negotiating process. An example of Abt JTA's innovative Public Private Partnership work in a community setting with Ok Tedi Mining Limited in Western Province of Papua New Guinea is in Attachment Four.

IDENTIFYING ETHICAL PRIVATE SECTOR AGENCIES FOR DEVELOPMENT

Private sector partnerships should be chosen on the basis of due diligence and the establishment of a case showing a clear benefit in utilizing a private sector partner for reasons such as physical presence in an isolated area, unique delivery capacity and opportunity to reduce cost of delivery through leveraging private funds.

The selection of the right private sector partners is an important issue. DFAT would be wise to undertake due diligence to identify partners who already conduct ethical business practices when operating in developing countries. This might include complying with the UN Global Compact, which has 10 principles that all businesses should follow with respect to human rights, labour standards, the environment and anti-corruption. In practical terms, these say: uphold human rights and do not take part in human rights abuses; avoid forced labour and child labour; take environmental responsibility; and avoid corruption. Judgment of ethical practices could also include complying with the Global Reporting Initiative, one of the worlds' most widely used standards for sustainability reporting, through which organizations publicly report their economic, environmental and social performance.

THE ROLE AUSTRALIAN AND INTERNATIONAL BUSINESSES COULD PLAY TO SUPPORT DEVELOPMENT

The PNG Business Coalition Against HIV/AIDS (BAHA) is an example of business engagement in addressing HIV/AIDS issues through advocacy and provision of support for the development of HIV/AIDS workplace policies (BAHA 2008). Business associations, like the Australia PNG Business Council, can also play a role in health, for example malaria. By distributing good practice guidelines to firms and acting as an information resource, these associations can help firms that lack the resources to create malaria programmes themselves. They can also encourage manufacturers of drugs and insecticide treated nets to provide more comprehensive information about malaria to consumers and to combat the problem of counterfeit drug sales which is prevalent in many developing countries.

Businesses operating in developing countries can engage in many ways to support pro-poor development. For example, the World Economic Forum lists possible roles in malaria control for firms working in particular sectors (Bloom, Bloom & Weston 2006). These include: (i) firms working in the health sector developing new drugs, cheaper and more efficient diagnostic malaria tests and vaccines, and strengthening medical infrastructure and training; (ii) construction and engineering firms building mosquito-proof structures, and promote vector control by draining or filling in breeding sites; (iii) energy companies making dam reservoirs safe against malaria; (iv) firms working in the food, beverage and retail sectors using their strong distribution networks to deliver malaria prevention and treatment tools; (v) information technology businesses working with governments to develop surveillance systems to track the disease and predict outbreaks and working to strengthen health management systems; (vi) media and entertainment firms promoting awareness of malaria and educating consumers about prevention and treatment; (vii) financial services firms helping the poor cope better with malaria by developing micro-credit programmes that are linked to the provision of information about health insurance or its purchase;

and (vii) logistics and transport firms deploying their services in delivering malaria commodities.

All firms in vulnerable areas can educate employees and their families about prevention and treatment or train community-based volunteers to educate. They can also provide or facilitate the administration of drugs and distribution of bed-nets. In addition, firms can assist governments in building up more robust malaria databases by collecting data on the disease's incidence among employees and the surrounding communities.

Another strategy will be to harness the business community, in particular the resources sector, to develop sustainable health programs for local communities which create benefit for both the business and the community, such as the North Fly Health Services Development Program in PNG (Attachment Four).

DFAT could also provide technical assistance necessary to support the government to enter into effective partnerships with the extractive industry. This could include technical assistance for coordinated planning, establishment of memorandums of understanding, governance structures and application of national standards. DFAT could provide technical expertise and facilitation to government to ensure that resource projects contribute to long term social and economic development.

CONCLUSION

We welcome the Government interest in building the role of business in development, in developing, engaging and supporting a well-managed and effectively regulated private sector, and in leveraging the capacity and resources of the private sector to achieve better development outcomes. We would welcome the opportunity to appear before the Sub-Committee to further elaborate on our ideas and to support the Government to increase business involvement in the aid program.

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Bloom D., Bloom LR.,and Watson M. (2006). Business and Malaria: A Neglected Threat? World Economic Forum. Accessed 30 April 2014. http://www.weforum.org/pdf/MalariaReport.pdf

Global Health Initiative 2007, *Public-Private Partnerships in Health: The Private Sector's Role in Public-Private Partnerships*, Global Health Initiative,, viewed 5th February 2008, http://www.weforum.org/pdf/GHI/Partnerships_health.pdf.

World Economic Forum, 2008, *Case Study Library*, Global Health Initiative, viewed 5th February 2008, http://www.weforum.org/en/initiatives/globalhealth/Case%20Study%20Library/index.htm

ATTACHMENTS

Attachment One: Jane Thomason and Matthew Hancock, (2011) "PNG mineral boom: Harnessing the extractive sector to deliver better health outcomes," ANU Development Policy Centre, Discussion Paper 2, January 2011

Attachment Two: Jane Thomason, Susan Mitchell and Daniel Brown,(2013) "Extending health services to the poor through the private sector" ANU Development Policy Centre (Posted April 26 2013)

Attachment Three: Neelam Sekhri Feachem, and Jane Thomason, (2013) "Ailing Public Hospitals in PNG: A Radical Remedy from Africa?" Devpolicy Blog , 8 July 2013

Attachment Four: Abt JTA, (2013) "Towards a Healthier Future," North Fly Health Services Development Program, Report to OTML Board

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PNG mineral boom: Harnessing the extractive sector to deliver better health outcomes

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Abstract

International experience has shown that mining and resources sector participation in Public-Private Partnerships (PPPs) can realise substantial health benefits not only for the company, but also for its public sector partners and communities. This paper summarises the international experience, and presents examples of mining and resource sector participation in health care in Papua New Guinea (PNG). The extractive industries in PNG are already actively involved in health service delivery and improving health conditions in the area within which they operate. With the prospect of major economic growth in PNG comes an opportunity to further systematise and expand on the application of industry expertise to creating lasting development in the PNG health sector for the benefit of the private sector, the government and the community alike. The paper also discusses some of the challenges in further harnessing the private sector as a partner in PNG development, including i) barriers to collaboration; ii) engaging with extractive industry partners; and iii) developing relationships and trust.

Discussion Paper 2

JANUARY 2011

PNG mineral boom: Harnessing the extractive sector to deliver better health outcomes

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Thomason, J & Hancock, M 2011, 'PNG mineral boom: Harnessing the extractive sector to deliver better health outcomes' *Development Policy Centre Discussion Paper #2,* Crawford School of Public Policy, The Australian National University, Canberra.

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PNG mineral boom: Harnessing the extractive sector to deliver better health outcomes

1. Introduction

Papua New Guinea (PNG) ranks last among ADB's Pacific developing member countries on both the Human Development Index (148 out of 182 countries worldwide) and the Human Poverty Index of the United Nations (United Nations Development Programme 2009). Roughly 40% of all PNGeans were recorded as living in poverty in 2009 (AusAID 2009), 10% more than recorded in 1995 (PNG National Executive Council 2004). PNG has recorded limited progress against the United Nation's (UN) Millennium Development Goals (MDGs). The MDGs are a set of 8 human and economic development goals adopted by all UN members states including PNG for the 2000-2015 period. A 2004 review of PNG's progress toward the MDGs found that it would be very difficult for PNG to achieve most of the targets within the established timeframe (PNG National Executive Council 2004).

Many health indicators in PNG have deteriorated in recent years, including the availability and performance of health facilities. "The reported national prevalence of tuberculosis, malaria, typhoid and other infections have not declined in the past three decades" (Naraqi, Feling & Leeder 2003, p. 7). HIV/AIDS, malaria and tuberculosis (TB) are widely recognised as priority issues, with each receiving significant international attention with a global fund to fight the three diseases created in 2002 (The Global Fund 2007). The adoption of western diets and lifestyles have also lead to an increase in dental problems, heart disease, obesity, diabetes, and micronutrient deficiencies (Banks 2001; Taufa & Benjamin 2001).

In contrast, there are buoyant economic forecasts, largely related to growth in the resources sector. There have been predictions that the PNG economy will double in 3 years with the establishment of a major LNG project (Oil Search Limited 2009). Revenue from resource operations makes up a large part of the country's economy (22% of GDP in 2004), while the government also receives significant international donor support (15-20% of government revenue in 2006). A pivotal question for the government and the resources sector alike is how this economic growth can be converted into broad

based and sustainable social development. We argue that business can play a significant role in the broader and more sustainable development of a nation and the attainment of the Millennium Development Goals.

In contrast, there are many in PNG, and indeed, among government and donors, who believe that a purely public sector response is the answer to development issues, although a recent OECD study suggests that this may not be based on sound evidence (Van der Gaag & Stimac 2008). The study examined whether there was any evidence that public health spending resulted in a more equitable distribution of health outcomes. There was no evidence that public expenditure on health produces better outcomes than private expenditure on health. The study also examined the differences in per capita spending on health care between different countries, finding that more than 90% of the difference is explained by variations in GDP. The study also found that total public and private resources for health care increased at about the same rate as the income level of the country. If this relationship holds true for PNG then health care spending may be expected to double in the next two to three years with the expansion of the resources sector. A key question arises, what will this money be spent on and how?

The government has and will always have a number of key roles to play in the delivery of health services, be it regulator, funder or provider. Certainly it must be the regulator as only government can set and enforce regulations. With a prospective doubling of GDP and health care spending, clearly it should have the capacity to be the funder. The provision of health services however may benefit significantly from engagement with the private sector and other health related organisations.

Churches already run 45% of all health facilities in rural areas, and employ 23% of all health workers. According to the review of health services in 2003 (Churches Medical Council 2003), church facilities deliver about half of all ambulatory care, facility based deliveries, and immunizations in the provinces (Matheson et al. 2009). There may be potential to fund and expand their role, especially in rural areas. Non-governmental organizations (NGOs) have proliferated in the health sector in recent years, largely due to HIV funding, and now are a small but growing set of service providers. Private health care providers have a small but growing foothold in larger urban areas, and can be expected to grow. In many low income countries 50% or more of the resources spent on

health are private resources, with private services purchased by rich and poor alike and drugs being sold in private pharmacies. Developing, engaging and supporting a well-managed and effectively regulated private sector will be an important strategy element for the delivery of health care to the population of PNG. Another strategy will be to harness the business community, in particular the resources sector, to develop sustainable health programs for local communities, which create benefit for both the business and the community. This paper will focus on the potential benefits and the problematic issues related to increasing engagement with the extractive industries to create lasting development in the PNG health sector during the resources boom.

2. Global Experience with Health and the Extractive Industries

There are potential benefits to government and industry alike in looking at future extractive industry developments as having both social and economic potential. Resource sector partnerships can contribute to local and national public health strategies by: (i) utilising industry business skills and networks, monitoring capacity and technical expertise to assist in meeting public health goals and objectives; (ii) expanding the reach of public health services and initiatives; (iii) assisting with capacity development in public sector and civil society partner organisations; and (iv) providing financial and in-kind support (Bloom et al. 2006; Bloom, Mahal & River Path Associates 2001; Boldrini & Trimble 2006; Global Health Initiative 2007; Sidhu 2008; Sulzbach et al. 2005).

The potential benefits of resource sector partnerships for government include: (i) expansion of the reach of public health services; (ii) improvement of the quality of public health services; (iii) delivery of health services at lower cost than through alternative measures; (iv) strengthened financial, logistical and in-kind support; (v) improved infrastructure capability to support operation and maintenance; (vi) strengthened public health programmes for priority issues such as HIV and AIDS; (vii) capacity development of the health system; and (vii) the presence of a viable partner who can guarantee delivery of strategic health priorities in districts over a long period (many extractive industries have a life cycle above 20 years).

The potential benefits of involvement in health partnerships for industry include: (i) improved social development in extractive industry affected areas; (ii) improved quality

of health care for workforce; (iii) strengthened risk mitigation in relation to epidemics and communicable disease, leading to lower healthcare costs through prevention of costly conditions; (iv) communities from which it will draw much of its workforce will be healthier; and (v) enhanced social license to operate.

The potential costs (direct and indirect) to government include: (i) expertise to plan, develop, negotiate contract and manage and monitor; (ii) continuation of existing funding allocation; (iii) technical contribution to program development; (iv) possible additional contribution from royalties, either directly or via communities; and (v) cost of ongoing operation upon exit of the company.

The potential costs (direct and indirect) to industry include: (i) allocation of time to plan, develop, negotiate contract and manage and monitor; (ii) costs of implementation (money, people, logistics etc); (iii) relationship management; and (iv) cost of technical expertise to ensure program quality.

Corporate social responsibility, or maintaining a social license to operate, is becoming increasingly important to the extractive industries. There are growing expectations on resource companies to contribute to and support local social and economic development initiatives with a number of organisations involved in promoting involvement and monitoring performance of resource companies in this area including the International Council on Mining and Metals (ICMM), the Global Reporting Initiative (GRI) and the International Finance Corporation (IFC). Svendsen (1998) notes that while investors do not necessarily reward socially responsible companies, announcements of socially irresponsible events are invariably followed by significant downturns in the that company's stock value.

In summary, partnerships for health and social development between the government and the resources sector offer an opportunity for companies to improve the quality of health care available to their workforce and local communities. This can help companies to ensure the continued fitness for duty of the local labour pool and develop internal capacity to understand and manage health issues (The Center for Business and Government et al. 2004).

2.1. Global case studies

There are a range of published case studies on resource sector partnerships, largely from Africa, most of which are primarily concerned with the prevention and treatment of HIV/AIDS, malaria and TB (Brink & Pienaar 2007; Daly 2000; Diara, Alilo & Mc Guire 2004; Global Health Initiative 2008; Pefile 2002; Sinanovic & Kumaranayake 2006a, 2006b, 2006c; Spielman et al. 2002; Utzinger et al. 2005). There is also some mention of other less formal resource sector health partnerships (Hamann 2004). There is little published on broader based community health and development programs.

In this section, a summary of published international case studies related to HIV, malaria and s (TB) are presented. HIV/AIDS, malaria and TB are recognised as priority issues in the global effort to improve health conditions (The Global Fund 2007). The most comprehensive collection of industry case studies is that of the Global Health Initiative (GHI) of the World Economic Forum. The GHI has compiled case studies on the rationale and approaches of 50 international organisations and businesses to the management of HIV/AIDS, malaria and tuberculosis (World Economic Forum 2007) including 10 mining related case studies from South Africa, Tanzania and Zambia (Anglo Gold 2003a, 2003b; Anglovaal Mining 2002; Barrick Gold 2002; De Beers 2002; Geita Gold Mine 2002; Gold Fields 2002, 2003; Konkola Copper Mines 2002; South Deep Mine 2002) and four oil and gas related case studies from Angola, Nigeria and Cameroon (Chevron Texaco 2002, 2003a, 2003b; Exxon Mobil 2002). There are many other industry case studies covering topics such as programs in the mining industry for HIV/AIDS (Brink & Pienaar 2007; Campbell & Williams 1999; Campbell, Williams & Gilgen 2002) and malaria (Ngugi, Chiguzo & Guyatt 2004), business perceptions of major communicable diseases in African nations (George & Whiteside 2002; Oppong 2001) and health impact assessment in African resource projects (Utzinger et al. 2005).

2.2. HIV/AIDS case studies

The World Economic Forum's Global Health Initiative (GHI) study of case studies on the business response HIV/AIDS found that: (i) employees are the main target of programmes, with employees' families, local communities, other businesses and high-risk groups such as commercial sex workers being secondary targets; (ii) most case study firms have implemented their programmes with assistance from governments,

NGOs, unions, business coalitions or alliances, or other businesses (as well as strengthening the knowledge and skills base on which policies are built, this may have spin-off effects in encouraging other organizations to become involved); (iii) most firms include both prevention and treatment; and (iv) all case study firms regularly evaluate the effectiveness of their programmes.

There are two examples of the development of an HIV/AIDS management system (George & Whiteside 2002; Gold Fields 2003), with other cases emphasising the importance of well defined and structured planning and implementation (Barrick Gold 2002; Campbell & Williams 1999; Geita Gold Mine 2002). Stakeholder engagement was noted as an important success factor in three cases (Barrick Gold 2002; Chevron Texaco 2003a; Geita Gold Mine 2002), while stakeholder education was also noted as a success factor (Gold Fields 2003). Campbell & Williams (1999) noted that factual awareness of HIV/AIDS has not resulted in demonstrable behaviour change in the South African mining workforce, thus highlighting the importance of behaviour change programmes such as those which were noted as a factor of program success by Anglo Gold (2003). Campbell, Williams & Gilgen (2002) noted that involvement in some community organisations such as sports teams can lead to positive behaviour change. Finally the swift / immediate implementation of best practice was cited as an important success factor in two cases (Anglo Gold 2003b; Gold Fields 2003), with Anglo Gold stating that a factor of their programs success was that they "spend *less time and money on the risk assessment analysis which is costly and can produce unreliable estimates, and more resources on acting"* (Anglo Gold 2003b, p. 7).

Expenditures on HIV/AIDS programs in extractive operations in Africa range from $48 per employee to $97 per employee as can be seen in Table 1. These expenditures often include large-scale community programs, and thus are not representative of how much is being spent on each individual worker.

Table 1: HIV/AIDS prevalence rates and budgets from selected case studies

Country	Workfroce prevalence rate	Annual program budget[1]
South Africa (Anglo Gold 2003b)	30%	$2.6 million = $58 per employee
South Africa, Zambia and Namibia (Anglovaal Mining 2002)	14%	$255,000 = $48 per employee
Tanzania (Barrick Gold 2002)	4% (predicted possible escalation to 20%-40%)	$93,000 = $63 per employee
South Africa (Gold Fields 2003)	30%	$2.4 million = $46 per employee
South Africa (South Deep Mine 2002)	30%	$240,000 = $51 per employee
Nigeria (Chevron Texaco 2003a)	6% to 8% UNAIDS country estimate company estimate of 2.5%	No cost information provided

The HIV/AIDS program of the Anglo American mining company has shown that business participation in managing HIV/AIDS can have a positive impact on both health and profits. Anglo American's community health partnership initiatives in South Africa were based on their internal business models, focusing on specific goals, defining and measuring key performance indicators for these goals and utilising sound management practices. Savings related to the program outweighed the cost of the program which resulted in a reduction in AIDS related illness and death, TB rates and absenteeism of HIV positive employees (Brink & Pienaar 2007). The HIV/AIDS program was initiated and developed within the company over the last 20 or so years and extended out to the community in 2003. Anglo's community efforts are based on taking experiences the company has had success with in the business and applying them on a larger scale to communities. An example of this is a project to build a community health centre at Lillydale in the Bushbuckridge Municipality, Mpumalanga Province. Lillydale is a poor

[1] All costs in US dollars

rural area of high HIV prevalence where the government health system has been unable to cope with the epidemic. A number of Anglo's employees come from the area, and the company is working to improve the quality of healthcare in this rural community through a public/private partnership. Anglo Coal South Africa has partnered with Sir Richard Branson's Virgin Unite and the President's Emergency Plan for HIV/AIDS Relief in the initial rollout of this project. It also plans to partner with the local public health service and with non-governmental organizations.

The business case for managing HIV/AIDS ranged from a predominantly economic case (Anglovaal Mining 2002; Campbell & Williams 1999) to a predominantly social case (Barrick Gold 2002). Most companies lay somewhere in the middle citing a combination of social responsibility and protecting the profitability of the operation / reducing the costs incurred by the disease (Anglo Gold 2003b; Chevron Texaco 2003a; Geita Gold Mine 2002; Gold Fields 2003; South Deep Mine 2002; Utzinger et al. 2005). Oppong (2001) noted that in Ghana smaller businesses were less aware of the business case for managing HIV/AIDS, whereas these businesses were highly aware of the business case for managing malaria.

Success factors of industry HIV/AIDS programs included the implementation of formal management systems, management commitment, stakeholder engagement, focusing on behavioural change, swift implementation of best practice and the implementation of specific innovative programs.

2.3. Malaria case studies

A recent report by the World Economic Forum lists possible roles in malaria control for firms working in particular sectors (Bloom, Bloom & Weston 2006). These include : (i) firms working in the health sector developing new drugs, cheaper and more efficient diagnostic malaria tests and vaccines, and strengthening medical infrastructure and training; (ii) construction and engineering firms building mosquito-proof structures, and promote vector control by draining or filling in breeding sites; (iii) energy companies making dam reservoirs safe against malaria; (iv) firms working in the food, beverage and retail sectors using their strong distribution networks to deliver malaria prevention and treatment tools; (v) information technology businesses working with governments to develop surveillance systems to track the disease and predict outbreaks and working

to strengthen health management systems; (vi) media and entertainment firms promoting awareness of malaria and educating consumers about prevention and treatment; (vii) financial services firms helping the poor cope better with malaria by developing micro-credit programmes that are linked to the provision of information about health insurance or its purchase; and (vii) logistics and transport firms deploying their services in delivering malaria commodities.

All firms in vulnerable areas can educate employees and their families about prevention and treatment or train community-based volunteers to educate. They can also provide or facilitate the administration of drugs and distribution of bed-nets. In addition, firms can assist governments in building up more robust malaria databases by collecting data on the disease's incidence among employees and the surrounding communities.

Three malaria case studies provided information on prevalence rates and annual site or corporate budgets. It can be seen in Table 2 that program budgets range from $12 to $85 per employee, with between $17 and $49 spent per case. Higher levels of spending correspond to increased levels of prevention activities, with the Chevron Texaco case reporting only their spending on anti-malarial medication. In these three cases, the business case for managing malaria involved both the savings that would result from the reduction of the direct and indirect costs of malaria to the company and the importance of reducing the burden that malaria imposes on employees, their families and communities (Chevron Texaco 2003b; Exxon Mobil 2002; Konkola Copper Mines 2002). Corporate commitment to social responsibility was also cited as an aspect of the business case by Chevron Texaco. Konkola Copper Mines, which had the lowest workforce prevalence rate of the three cases, stated that malaria results in significant direct and indirect costs to business.

Table 2: Malaria prevalence rates and budgets from selected case studies

Country	Workforce prevalence rate	Annual program budget
Zambia (Konkola Copper Mines 2002)	540 cases per 1,000 employees in 1 year	$230,000 = $20 per employee or $37 per case (on prevention programme)
Nigeria (Chevron Texaco 2003b)	716 cases per 1,000 employees in 1 year	$22,000 = $12 per employee or $17 per case (on anti-malarial drugs only)
Cameroon and Chad (Exxon Mobil 2002)	1,750 cases per 1,000 employees in 1 year	$870,000 = $84 per employee on $49 per case (control program and partnership)

Success factors of malaria management programs included effective management, swift implementation of best practice, the implementation of specific innovative programs and effective stakeholder engagement. A clear and systematic planning process which facilitates effective and efficient collaboration with other organisations and ensures multiple layers of controls proved successful at Exxon Mobil, while both Exxon Mobil and Konkola Copper Mines noted that rigorous monitoring of cases and outcomes supported a more effective and timely decision making process. Utilising best practice, establishing quality laboratory and treatment capacity, comprehensive intra-domicile residual spraying with a proven insecticide and the early diagnosis of cases and a swift response to reduce the severity of the case were all noted as important factors of program success (Chevron Texaco 2003b; Konkola Copper Mines 2002). It was found that it is possible to finance community intra-domicile residual spraying to reduce the local mosquito population through savings due to the associated reduction in cases and their direct and indirect costs to the business (Konkola Copper Mines 2002). The establishment of local community groups that sell bed-nets to individuals and businesses at a small profit can lead to a sustainable local business venture which may be able to continue to operate post closure, and also to a reduction in cases and associated costs (Ngugi, Chiguzo & Guyatt 2004). Community involvement in malaria control programmes was a key success factor in all cases (Chevron Texaco 2003b; Exxon Mobil 2002; Konkola Copper Mines 2002).

2.4. Tuberculosis case studies

Data concerning industry tuberculosis management programs differed greatly by company with prevalence rates varying by a factor of ten in companies within the same country. Annual budgets show significant expenditure per employee of $75 to $111, with De Beers stating that treatment for their employees was provided by government health services and Gold Fields providing information on their programme without details of expenditure.

Even though workforce prevalence rates of active tuberculosis cases were low, Gold Fields (2002, p. 2) stated that "a study of gold mines in South Africa estimated that nearly 90% of employees have latent TB infection." With the increasing prevalence of HIV/AIDS, there is an increase in the conversion of latent infections to active cases. The business case for managing tuberculosis included the increasing costs being incurred due to the increase in active cases (Anglo Gold 2003a; De Beers 2002; Gold Fields 2002), and the responsibility of the company towards their employees and the local community (Chevron Texaco 2002; De Beers 2002).

Factors of success for tuberculosis management programmes included consistency (of service provision, drug supply and education) and management commitment (Anglo Gold 2003a; Chevron Texaco 2002) and a focus on local implementation with deep community level involvement (Chevron Texaco 2002).

Table 3: Tuberculosis prevalence rates and budgets from selected case studies

Country	Workforce prevalence rate	Annual program budget
South Africa (Anglo Gold 2003a)	23 cases per 1,000 employees	$3.8 million = $75 per employee
South Africa (De Beers 2002)	2.3. cases per 1,000 employees	No data
South Africa (Gold Fields 2002)	33 cases per 1,000 employees	$300,000 = $111 per employee
Angola (Chevron Texaco 2002)	1.7 cases per 1,000 population (including community	$300,000 = $111 per employee

2.5. Case study summary

Many major resource companies operating in African nations are actively involved in the provision of health services in communities with similar prevalence of disease to those experienced in PNG. Application of resource industry expertise in project development and implementation, management systems, logistics and corporate governance to health improvement have shown positive returns on investment for mining companies with respect to decreased direct and indirect cost of disease and for the community with respect to improved health conditions. Partnerships for health which draw on industry expertise to deliver positive health outcomes in PNG are discussed in the next section.

3. Extractive industries and health in PNG

PNG relies heavily on the extractive industries income to support its economy. Mining and petroleum accounted for 22% of PNG's gross domestic product in 2004 (Manning 2005), while total mineral export receipts amounted to K2000.1 million in the March 2009 quarter (Guinea 2009) and mining and petroleum tax revenue accounted for approximately 43% of government tax revenue in 2006 (PNG Department of Treasury 2006).

The most recent development in the PNG resource sector is the PNG LNG Project, operated by ExxonMobil (Oil Search Limited 2009). The LNG Project is projected to be PNG's largest resource and most profitable resource operation. It is also shaping up to be the most complex and largest geographical impact. It arguably also has great potential to impact positively or negatively on social and economic development.

The major stakeholders of the PNG mining industry include mining corporations, shareholders, local communities and landowners, national, provincial and local level governments and their agencies, employees, NGO's, suppliers and the broader community of PNG (Banks 2001).

Since independence the PNG government policy on mining has been to utilise mining taxation revenue to promote development in other sectors of the economy. In reality, little development has occurred and the PNG economy has continued to be reliant on mining revenue (Banks 2001; Connell 1997). Connell (1997) concludes that the processes of change that characterise development must be viewed in both economic and social terms, with most efforts in PNG to date being focused on economic development.

The mining industry is playing and will continue to play a large part in the development process due to its significant contribution to the economy and its efforts to promote sustainable development in mining areas. Where the responsibility lies for providing solutions to the social and economic problems that hinder development is a question to which there is no single answer. Partnerships between the government, the private sector and civil society organisations are becoming increasingly popular (Ratzan 2007).

The National Government of PNG receives substantial tax revenue from the mining industry. Through the Department of Mining (DoM), it makes policy for regulating the industry and is a regulator for the industry through the Mineral Resources Authority (MRA). Through the Mineral Resources Development Company Pty Limited (MRDC) it is also a part owner of a number of mining operations. The National Government, in collaboration with the Provincial Government utilises tax revenue from the operations to fund public services in impact areas, and has also implemented a tax credit scheme through which companies may claim tax credits on expenditure on local infrastructure development and capacity building of up to 0.75% of their gross revenue (Banks 2001).

Provincial governments of mining areas also receive substantial tax revenue from the mining industry, and are involved in the implementation of the tax credit scheme. Provincial governments are often located in the provincial capitals which are far from the mining areas. It has been noted that Provincial government involvement in service provision in mining areas may often be politically motivated and of a temporary nature (Banks 2001). Indeed, in some cases it has been said that due to the benefits provided to the local community through mining land use agreements, the "government *has abandoned its usual functions in these areas, leaving it to the resource company to provide roads, schools, health services, agricultural extension and supply services"* (Asian Development Bank 2000, p. 56).

Local Level Governments (LLGs) generally lack the resources and capacity to carry out many of their administrative responsibilities. The support of mining operations in developing the structures and practices required for effective and efficient governance generally results in LLG's being stronger in mining areas than elsewhere. Special purpose authorities such as the Porgera Development Authority and the Nimamar Development Authority (Lihir) have been put in place to assist in LLGs with the implementation of long term development plans in mining areas (Filer 2004). Mining operations are often careful not to take on the functions of the LLG as there can be a perception that doing so may prevent the LLG from developing the capacities necessary for sustainable development post mining.

3.1. Health impacts and interests

Resource operations in PNG are typically located in some of the most remote and inaccessible parts of the country and draw their workforce from across the nation. Remote local communities are generally characterised by poor health and living conditions and access to quality health services in these remote areas is typically limited.

Local communities generally experience great change with the development of a mining operation in their area. They gain increased access to health, education and other infrastructure, royalty payments and employment opportunities. Conversely, local communities are also seen to be "bearing *the brunt of the social, cultural and environmental changes that the mines bring"* (Banks 2001, p. 25). There have been

instances of violent conflict between local communities and mining operations in PNG, mainly with respect to the amount and distribution of royalties. Migration into mining areas often results in crowded squatter settlement areas. These areas generally have poor access to services, typified by low levels of sanitation and maintenance of infrastructure. Hygiene amongst migrants who may have very little in the way of resources and do not have any rights to the land can be even poorer than rural hygiene, primarily due to over-crowding and a lack of resources. Due to the limited transport infrastructure of PNG some mining areas are not accessible by road. Most mining areas are far from regional centres and consequently have poor access to public services other than those provided by the mining operation. The type of transport routes by which mine sites are accessible can play a role in determining the types of exposure to communicable disease that are experienced by the workforce and local communities. Large scale mine sites that provide public services and are easily accessible generally experience higher levels of migration and settlement which may result in increased exposure to different types of communicable disease. The logistics chain of each operation may also need to be considered when developing an understanding of workforce exposure patterns.

PNG has a long history of resource sector involvement in health care with the first formal hospital established by a mining venture being built by Bulolo Gold Dredging Ltd. to serve its employees in the early 1930's (Dunkin 1950). The next major mining related health services project was the hospital built in Arawa in 1972 to serve the Bougainville copper mining operation (Pacific Publications 1976). The construction of the hospital was a part of the Government's mining agreement with Bougainville Copper Limited as set out in the Mining (Bougainville Copper Agreement) Act of 1967 (Independent State of PNG 1967). The agreement stated that the mining company was to fund and carry out (or contract out) the construction of the hospital at a location agreed upon with the government (then the Australian Administration of PNG) and that the government would fully reimburse the company within two months of completion unless agreed otherwise. The government would then staff and service the hospital and continue to do so at no cost to the company apart from normal service charges. Since then most major mining operations have constructed and operated, or assisted in operating, hospitals in their areas through various forms of partnership with the government. The major mine

sites in PNG have all supported the development of medical services in their respective areas. Facilities operated by mining operations and some other companies are generally well equipped, staffed and utilised and provide possibly the highest quality services in the country (Izard & Dugue 2003).

The PNG Institute of Medical Research (PNGIMR) has a collaborative relationship with the mining industry which has resulted in a range of health initiatives and academic publications (Alpers 1999; Hii, J et al. 2000; Hii, J. et al. 1997; Hombhanje et al. 1998; Selve et al. 2000; Spicer & Lucena 1998; Vail 2002).

Other notable initiatives that have been carried out by members of the industry include the filariasis eradication programs in the regions surrounding the Misima, Lihir and Ok Tedi gold mines which all resulted in significant reductions in the incidence of the disease within a matter of years (Hii, J et al. 2000; Jackson 2002; Schuurkamp 1992). The program in the Misima island group has proven to be sustainable since closure of the mine with an enduring local network distributing the annual dose of medication required to treat the disease. This network is also being used to distribute insecticide treated bed nets which reduce the incidence of not only filariasis but malaria as well.

Banks (2001) provides a broad overview of health trends in the mining industry and its local communities. Banks cites reductions in malaria in filariasis, dramatic increases in life expectancy, improved maternal and child health, improvements in safe water supplies, the eradication of yaws in remote areas and large scale health programmes to assist health service delivery in remote areas. He also notes that there is a basic paradox when it comes to community health in mining areas, which is that even though mining results in a marked increase in local health resources, community health indicators do not necessarily improve. Contributing factors for this phenomenon include the increased burden on the health system caused by the large numbers of migrants that are invariably attracted to mining areas in PNG, the introduction of new diseases and health issues through increased contact with external populations (including asthma, dental problems and communicable diseases such as STIs and HIV/AIDS) and potentially limited utilisation of public health expertise (Banks 2001; MMSD 2002). Banks (2001, p. 47) further notes that there is a lack of data concerning the impacts of mining operations

on community health and that any available data is generally "patchy *in terms of geographical, temporal or disease focus."*

Extractive industries in PNG are generally faced with poor or limited government health services (especially in remote areas) and workforces which are regularly exposed to communicable diseases in the local community and in their home communities for the case of fly-in fly-out employees. The majority of large scale mining operations have for many years been providing health services for their workforces and also in many cases for the local community.

In the following section, case studies of current resources sector programs, that have the potential to extend sustainable benefit to local communities are presented.

3.2. The ADB HIV in enclaves project

In 2006, the Asian Development Bank (ADB) approved a grant of US$15 million for HIV/AIDS Prevention and Control in Rural Development Enclaves – to attain higher levels of coordination among government, private sector, development partners, NGOs, community-based organizations, private sector organizations, and affected communities in the fight against HIV/AIDS. The project's total cost is estimated at $25 million, of which Australia and New Zealand are providing $3.5 million each. The remaining $3 million comes from the Government of PNG. ADB's grant is provided from its Asian Development Fund, which provides concessional loans and grants for its poorest developing member countries.

The Project has focused on rural areas where communities are centered on mines, plantations, fisheries plants, or other private sector operations. The project aims to help the Government initiate partnerships with the private sector operators at such communities to set up or improve primary health care and HIV/AIDS treatment and prevention facilities. The Project uses a partnership approach with industries to rehabilitate and strengthen rural health services and to use the strengthened primary health care system as a platform from which to control the HIV epidemic. The Project was designed in close coordination with the HIV/AIDS initiatives under the Global Fund through the National Department of Health, the National AIDS Council Secretariat and the main development partners in PNG. The program has a strong focus on facilitating

the development of public private partnerships through which to deliver HIV/AIDS activities and programs, particular facility based services and behavioural change activities, in enclave communities.

3.3. Oil search - Aalaria

Oil Search in Moro, Southern Highlands have achieved impressive results in malaria control. Their public health team have provided support and supervision for surrounding church, government and NGO health providers, making standard treatment courses and malaria diagnostics available through local community workers and storekeepers. They have also monitored the impact of this with reductions in malarial transmission being demonstrated from a prevalence of 25% to less than 5 % in 12 months (Hutton 2007). Oil Search has also supported an HIV/AIDs control program for the area and the strengthening the local health physical infrastructure, both in collaboration with the ADB HIV in Enclaves Program, and funding from the tax credit scheme.

3.4. Ok Tedi – Dorth fly health services development program

For many years, Ok Tedi Mining Limited (OTML), has operated a high quality hospital, which provides services for the mine workforce, and arguably acts as a referral hospital for North Fly, Middle Fly and parts of Sandaun Province.

More recently, in 2008 the OTML Board approved a K20 million health services development program for the entire North Fly District. The Program addresses the main causes of illness and death in North Fly District, the priority areas needed for improvement to strengthen health service delivery (effective health intervention, essential infrastructure and logistics, human worker capacity, community participation and population coverage). A key principle underpinning the Program is to support the existing health system, not to develop a new or parallel system. Support is provided to existing health service providers to enable them to deliver improved health services in line with PNG national standards. The health services company, which operates the Tabubil hospital, has been contracted as the Implementing Service Provider (ISP) and mobilized the Program in January 2009.

Ensuring that partners are engaged and committed is critical to the long term success and sustainability of the NFHSDP. Extensive stakeholder consultations were undertaken during the design and mobilization phases of the program. Partners were identified and the roles and responsibilities of each partner workshopped. Key partner organizations include the North Fly River District Government, the Evangelical Church of PNG, Catholic Health Services and the Ok Tedi Development Foundation. All partners have signed a Program Charter signifying the commitment of all partners to a shared partnership philosophy and underlying principles. By signing the Charter, partners also acknowledge and are committed to the identified essential elements of the Program; proposed interventions and strategic objectives; NFHSDP organizational structure, committees and Program governance and roles of Program partners.

Key achievements to date have include collaboration between partners for planning and coordination of health service delivery, particularly outreach patrols, a major bed net distribution project across the North Fly District, significant progress toward increasing the number of accredited VCT clinics in the district, establishment of regular delivery of essential medical supplies to remote areas that were previously under-supported and increased immunization coverage.

3.5. Lihir Islands community health plan

The Lihir Islands Community Health Plan (LICHP) is a five year plan and forms the framework for a comprehensive community health response for the communities of Mahur, Malie, Masahet and Niolam Islands. The Plan was a funded initiative of the Lihir Sustainable Development Plan (LSDP). The LSDP is in turn funded through the Integrated Benefits Package (IBP) which is the primary community compensation package agreed between Lihir Gold Limited and the local community.

The LICHP incorporates curative and preventative health services and programs. It promotes community responsibility for health and targets existing and potential disease burdens on the Lihir Islands. The LICHP was designed following extensive consultation and review and was based on the Government of PNG's Minimum Standards for District Health Services in PNG (National Department of Health 2001). The Program is implemented through an alliance agreement between the Lihir Mining Area Landowner

Alliance (LMALA) and a specialist health services company under the overall direction of an Advisory Committee. LMALA and JTA are contracted by the LSDP.

The goal of the LICHP is to achieve sustainable improvements in the health of the Lihir community. The objectives of the plan are to:

1. Improve the quality of community health services
2. Improve delivery of preventive health programs to communities
3. Increase community empowerment and responsibility for their own health care
4. Develop the human resource capability on the Lihir Islands to deliver sustainable health services
5. Ensure effective coordination and management of the health program and improve partnerships with Provincial and Local Level Governments, communities, church groups, LGL, training organisations and other stakeholders to improve the health of the community.

The specialist health services company has been contracted by LMALA to support the implementation of the LICHP

The LICHP has pursued partnerships with existing health service providers on Lihir and other relevant stakeholders. These partnerships are formalized through Memorandums of Understanding with the LLG, Catholic Health Service, district and provincial government and Lihir Gold Limited. Proactive partner engagement is a key focus of the program and all program activities are delivered in conjunction with partners. Lihirian communities are also considered a key partner and much effort has been made to engage these communities in the planning for and delivery of community health activities, primarily through community consultations and awareness sessions.

Formalising agreements between the partners has been a key achievement in a highly political environment. In the first year of implementation LICHP made significant inroads into re-establishing systems required to support the strengthening of the health system on Lihir and ensure the communities have access to better quality services. A health worker in-service and refresher training began; many of the health workers had not undergone any training since working on Lihir and some of them had been there for more than 20 years. The supervisory system has been reinvigorated with the LICHP

team supporting a newly appointed district Health Manager to visit health facilities on a regular basis and provide clinical and administrative supervision. The Sub-District Health Committee has also been revived, with all health service providers coming together on a semi-regular basis. It is intended that the regularity of meetings will increase and the Sub-District Health Committee will provide a forum for coordinated health service planning and management. In addition to systems strengthening and capacity development of the workforce, the LICHP has worked closely with partners and communities to redevelopment and open one aid posts and begin the redevelopment of a health centre.

3.6. Exxon Mobil

ExxonMobil is a global industry leader against malaria. ExxonMobil is involved in a wide range of global initiatives including Roll Back Malaria, a partnership of UN agencies, corporations, philanthropies, and non-governmental organizations. ExxonMobil's own workplace health program has been highly successful. ExxonMobil is represented on the Board of *Malaria No More.* ExxonMobil funding in Africa is being used to improve the delivery and use of prevention tools such as: bed nets; technical assistance to help countries significantly increase their capacity to control malaria; and the monitoring and promotion of progress through integrated communications methods. There is significant potential to benefit from ExxonMobil's global malaria experience in PNG.

3.7. Business Associations

The extractive industries have been involved in a National HIV/AIDS initiative through the private sector HIV/AIDS initiative of the PNG Chamber of Mines and Petroleum, the national representative body of the PNG mining and petroleum industry. The initiative was funded by AusAID and managed by the Chamber until March 2007. The initiative was merged with the PNG Business Coalition Against HIV/AIDS (BAHA) in March 2007. The coalition is funded jointly by AusAID and the business community and works closely with the National AIDS Council to engage the business community in addressing HIV/AIDS issues through advocacy and provision of support for the development of HIV/AIDS workplace policies (BAHA 2008). The National AIDS Council has noted that mining and petroleum operations are developing policies and programs for the prevention and treatment of HIV/AIDS and for the care of people living with HIV/AIDS

(PNG National AIDS Council 2007, p. 28). Business associations (like the PNG Australia Business Council) can also play a role. By distributing good practice guidelines to firms and acting as an information resource, these associations can help firms that lack the resources to create malaria programmes themselves. They can also encourage manufacturers of drugs and ITNs to provide more comprehensive information about the disease to consumers and to combat the problem of counterfeit drug sales which is prevalent in many developing countries.

3.8. Summary

From the brief examples shared above it can be seen that the extractive industries in PNG, and indeed other members of the private sector, are actively involved in health service delivery and improving health conditions in the locality and region within which they operate. The capacities and skills well established in industry are being applied to health service delivery with success in PNG, as they have been in Africa. With the prospect of major economic growth in PNG comes an opportunity to further systematise and expand on the application of industry expertise to creating lasting development in the PNG health sector for the benefit of the private sector, the government and the community alike.

4. Discussion

There is ample evidence that there is potential to engage the extractive industries in a positive way to contribute to PNGs efforts to achieve the Millennium Development Goals. In this section, we discuss some of the challenges to the systematic maximisation of the benefits of industry engagement in this area.

4.1. Barriers to collaboration

In a study of the role of the private sector in health systems in developing countries (Hozumi et al. 2008), the most common barriers to public private collaboration the Western Pacific Region were found to be: (i) the lack of clear framework that support collaboration; (ii) the lack of economical incentives for collaboration; and (iii) the absence of political commitment to collaboration . These are barriers that will need to be

broken down if successful partnerships with extractive industries for social benefit are going to be developed.

4.2. Framework for collaboration

Currently, the government does not have the capacity to monitor and regulate a widely subcontracted health service model. Specific elements that would require development include an appropriate policy and regulatory environment, contracting and monitoring expertise, access to expert advisers for due diligence and transaction implementation, development of payment and performance models and development, management and negotiation expertise.

4.3. Political commitment to collaboration

The PNG Department of Health welcomes private sector collaboration. The PNG National Health Plan 2001 - 2010 devoted an entire chapter to Partnerships in Health and recognized that 'sustainable health outcomes ... cannot be achieved by the health sector alone using traditional approaches' (Ministry of Health 2000) and the 2009 Medical Society of PNG's Annual Medical Symposium addressed the theme Public Private Partnerships in Health Care in PNG.

However, the interest in Public Private Partnerships is wider that just the health sector. In 2003 the Prime Minister of PNG announced that public private partnerships to be one of the preferred procurement models for the country. Since then momentum within the Government of PNG has continued to build with a National Public Private Partnership policy approved in December 2008. The policy was developed through an extensive stakeholder and community consultation process undertaken by a Public Private Partnership Taskforce, which was expanded in 2009 to include the Departments of Health, education, Transport, Works, Land and Physical Planning, the Attorney General and the National Roads and Civil Aviation authorities (GoPNG *Department of National Planning and Monitoring* 2009).

4.4. Engaging with extractive industry partners

Globally there is growing expectation that resource companies contribute to and support and report on local social and economic development initiatives, including from

the International Council on Mining and Metals (ICMM), the Global Reporting Initiative (GRI) and the International Finance Corporation (IFC). On the extractive industries side, the case studies reported here demonstrate good will and in some cases pro-active initiation of broader long term public and community health partnerships.

The challenge is how to create a facilitating environment, which systematically encourages and enables business participation in the MDGs. This includes creating clear expectations in relation to industry social commitments, and broadening the fiscal instruments (such as the tax credit scheme and distribution of royalties) to create incentives for that participation.

Another challenge is to ensure that health impact assessments, undertaken early in the resource development cycle, consider a broad health management plan. This should not be restricted to the workforce, and also consider the development of local health services and programs to protect and develop the health of local populations during the life of the project.

Early engagement would usefully incorporate government, local health providers, and interested donors who may have complementary programs which could be rolled out in the local area (e.g. The Global Fund HIV, malaria and TB programs), or who may be able to contribute technical expertise. The MDGs are at the centre of the Australian Partnerships for Development, where there may be potential for constructive collaboration in some areas.

4.5. Developing relationships and trust

Relationship issues will be critical to the success of extractive industry partnerships.

> "The relationship between public and private sectors has traditionally been, at best, icy. The private sector has seen governments and NGOs as inefficient, holier-than-thou bureaucracies, simultaneously squandering public money and complaining about not having enough of it. The public sector, on the other hand, has tended to view all business as inherently selfish and all business incursions into the public sphere as hypocritical" (Bloom, Mahal & River Path Associates 2001).

Better understandings need to be developed of the management of the differences in private and public sector motivations, expectations and ways of 'doing business' and other 'people issues'. Definition of 'core partnering issues' and how to create an 'enabling partnering environment', for example in use of terminology and language, context and culture, equity, power within partner relationships, leadership, trust between partners and partner involvement in planning and evaluation.

5. Conclusion

The extractive industries have a keen interest in HIV/AIDs, malaria and TB and will be vulnerable to the macroeconomic consequences of the HIV/AIDs epidemic. Individual operations also face potentially serious impacts of these diseases on their employees and markets. With respect to the business benefits of health improvement, studies relating to corporate wellness programs have indicated a 1.7:1 return on investment associated with reductions in medical and absenteeism costs (Isaac 2004). Anglo American's HIV/AIDS program also showed similar positive impacts with savings related to the program outweighing the cost of the program and reductions in AIDS related illness and death, TB rates and absenteeism of HIV positive employees.

Speed, efficiency, innovation, creative marketing and leadership are all more commonly found in a profitable environment and all are urgently needed in the fight not only against HIV/AIDS but also malaria and TB. The private sector has these skills, which are not always prevalent in the public sector (Bloom, Mahal & River Path Associates 2001). The extractive industries also have assets (such as premises, equipment, transport and delivery systems, and money), networks of contacts (workforce, customers, other businesses, access to governments, international reach) and a skill base (management and communication skills, monitoring capacities, information technology skills and employee knowledge) that can be a valuable resource in combating HIV, malaria and TB.

It is acknowledged that businesses are not development agencies, but that they can be significant development actors. In support of this proposition, the Lowey Institute's Jenny Hayward Jones contends that private sector engagement is critical in making progress towards MDGs (Hayward-Jones 2008). Privatisation of some health services and other social functions may result in more efficient provision of services which drive the achievement of these targets. The involvement of the private sector in development

initiatives is not a panacea for poverty, but it is a legitimate and valuable asset in the journey towards achieving the Millennium Development Goals.

The extractive industries are already operating in remote locations where health infrastructure is fragile, and their participation in partnership offers an immediate opportunity for health system strengthening, which would otherwise take years. Extractive industries have specialist expertise in locating and maintaining workforce and infrastructure in remote locations. The government and extractive industries have a shared agenda in terms of social development. Partnerships potentially create a win/win for both parties and this is firm ground for the development of partnerships (Matheson et al. 2009).

The experience with partnerships involving the mining sector in PNG has been encouraging. There is scope to mobilise and support the extractive industries in PNG to extend sustainable healthcare free at the point of use for substantial numbers of poorer individuals.

We suggest that collaborative and open discussion is needed about how to leverage the capacity and resources of the private sector and that the involvement of the private sector in health service provision can increase the scope and scale of service offerings for both private and public patients and result in substantial positive health outcomes for the people of PNG.

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Extending health services to the poor through the private sector [1]

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Introduction

Development agencies are increasingly looking to business as a partner in achieving development outcomes. AusAID's business engagement agenda "seeks to achieve greater effectiveness in the aid program by cooperating with the business community to jointly deliver creative solutions that help people overcome poverty" (AusAID, 2012a). This is also recognised in the recent release of AusAID's Private Sector Development Strategy that, broadly, commits AusAID to engaging more fully with the private sector both in Australia and in developing countries (AusAID, 2012b). This paper illustrates innovative private sector engagement strategies to support improved health outcomes, and is supported with case studies. Specifically, this paper offers evidence-based possibilities for AusAID to pursue its interest in partnerships for service delivery with the extractive industry in Papua New Guinea (PNG). In addition, it considers three opportunities for donor support for specific, poverty-reducing business ventures through risk-sharing with private sector project proponents: (i) partnering with private health providers; (ii) social franchising, and; (iii) private public investment partnerships.

This paper was originally presented at the "Engaging business in development" forum on 17 October 2012 at the Australian National University and is intended to be a constructive contribution to emerging AusAID thinking on the execution of its engagement with the private sector.

Extractive Industries Partnerships for Service Delivery

This section briefly summarises what is known of extractive industry partnerships and provides some additional thoughts on how the aid program could contribute to improved social outcomes from extractive industry developments in PNG.

The Global Health Initiative documented case studies of private sector participation in the management of HIV/AIDS, malaria and tuberculosis (World Economic Forum, 2007) including mining related case studies from South Africa, Tanzania and Zambia, (Anglo Gold, 2003, Anglovaal Mining, 2002, Barrick Gold, 2002, De Beers, 2002, Geita Gold Mine, 2002, Gold Fields, 2002, Gold Fields, 2003, Konkola Copper Mines, 2002, South Deep Mine, 2002) and oil and gas related case studies from Angola, Nigeria and Cameroon (Chevron Texaco, 2002, Chevron Texaco, 2003b, Chevron Texaco, 2003a, Exxon Mobil, 2002). More recent work by the donor group Harnessing Non-State Actors for Better Health for the Poor (HANSHEP) analysing resource sector health Public Private

[1] An earlier version of paper was originally presented at the "Engaging Business in Development Forum" at the Crawford School, Australian National University, October 17, 2012.

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Partnerships (PPPs) (Mining Health Initiative, 2012) found a positive benefit for health including a slowing of infection rates, increased community knowledge and generation of positive behavioral change with respect to infectious diseases. The study also found that extractive industry PPPs have lower cost per case cured than purely public models. This is due to lower recruitment costs for new employees, higher productivity, lower absenteeism and fewer deaths of skilled workers. The study also suggests because of a lower cost of providing services and lower need for government financing, that extractive industry PPPs are cost-effective ways of scaling access to health services.

PNG Case Studies on Extractive Industry Service Delivery Partnerships

PNG is a resource rich country and there are several documented examples of resource sector partnerships in PNG previously described by Thomason and Hancock (2011) including:

The ADB HIV in Enclaves Project: ($25 million) for HIV/AIDS Prevention and Control in Rural Development Enclaves. This focused on private sector operations in rural areas and aimed to help the Government initiate partnerships with the private sector operators to set up or improve primary health care and HIV/AIDS treatment and prevention facilities. It received financing of $25 million of which Australia and New Zealand provided $3.5 million each and Government of PNG provided $3 million.

Oil Search – Malaria: Oil Search in Southern Highlands has achieved impressive results in malaria control, providing support and supervision for surrounding church, government and NGO health providers, making standard treatment courses and malaria diagnostics available through local community workers and storekeepers. Oil Search has also supported an HIV/AIDs control program for the area and the strengthening of local health physical infrastructure, both in collaboration with the ADB HIV in Enclaves Program and funding from the tax credit scheme. More recently Oil Search has established a foundation to extend its health contribution to PNG, which is partnering with AusAID and the Global Fund to extend health programs in PNG.

Ok Tedi - North Fly Health Services Development Program (K20 Million): supports the local health system to deliver effective health interventions, essential infrastructure and logistics, human worker capacity, community participation and, population coverage. Key achievements have included: collaboration between partners for planning and coordination of health service delivery, particularly outreach patrols; a major bed net distribution project across the North Fly District; significant progress toward increasing the number of accredited voluntary counseling and testing (VCT) clinics in the district; establishment of regular delivery of essential medical supplies to remote areas that were previously under-supported; and increased immunization coverage.

Lihir Islands Community Health Plan ($7 million): is a five year plan that forms the framework for a comprehensive community health response for Lihir communities. This is funded through the community compensation package agreed between Lihir Gold Limited and the local community. The plan incorporates curative and preventative health services and programs, promotes community responsibility for health and targets existing and potential disease burdens.

Of these examples, only the ADB HIV in Enclaves Project was donor funded. The other three examples were funded from private resources (although the Oil Search Foundation is now receiving funding through donor channels). Resource companies don't necessarily need donor money to

improve their community health. The usual donor approach, which involves allocation of aid resources to programs, would not be the first step in a private sector partnership with the resources sector. It is important to first focus on leveraging resource sector contributions to get better outcomes or increased coverage for poor people.

Potential AusAID Partnership Opportunities

AusAID is already connecting with existing private sector service delivery initiatives such as the Oil Search Foundation and the Ok Tedi Development Foundation in the Middle and South Fly Districts of Western Province. These collaborations enable the extension of existing private sector service delivery programs to achieve greater reach and impact. As well as providing support for existing private sector service delivery initiatives within the extractive industries, AusAID could also provide technical assistance necessary to support the government to enter into effective partnerships with the extractive industry. This could include technical assistance for coordinated planning, establishment of memorandum of understanding (MOUs), governance structures and application of national standards.

Furthermore, there is also a significant opportunity for AusAID to contribute to policy change to minimize the health risks associated with the extractive industries and to maximise social outcomes. For example, it is well known that there are health implications from resource sector development. Currently, PNG does not require a health impact assessment (HIA) as part of its compliance requirements for a new resource development. As a result, they are rarely done, nor is comprehensive long term health planning undertaken during project development. The operator's generally only undertake their compliance requirements. They would see the health planning as the responsibility of government, although the government lacks the resources and capacity to undertake the needed health planning and risk identification and mitigation for health impacts. Inevitably, problems start to emerge during the project life, and only then are they addressed. This could be simply remedied with some initial planning support.

A valuable engagement for AusAID would be to provide technical expertise and facilitation to government to ensure that resource projects have:

1) An HIA completed to international standards.
2) A multi stakeholder long term health development plan, based on the HIA and building the existing health care delivery system, with clear roles and responsibilities, and measurable indicators.
3) A mechanism for regular reporting review and monitoring of performance.
4) Innovative funding mechanisms to provide for the implementation of the plan

Partnering With Private Health Providers

In many low income countries, 50% or more of the resources spent on health are private resources (International Finance Corporation, 2007). The OECD found that private expenditure on health and public expenditure on health produce similar outcomes (van der Gaag and Stimac, 2008). There is growing evidence that private health providers are a critical channel for extending health services to the poor, particularly in Asia, and can play a vital role in achieving the MDGs. For example, in sub-Saharan Africa and South Asia, 51 and 79 percent of mothers who sought treatment for children under five with diarrhea, cough or fever respectively accessed care from the private sector (Private

Healthcare in Developing Countries, 2008a). In relation to the unmet need for family planning, in approximately half of the 21 sub-Saharan countries with recent Demographic and Health Surveys (DHS) data (2006 or later), a third or more of modern family planning users obtained their methods from the private sector, and amongst the lowest three quintiles of women this increased to 50 percent (International Finance Corporation, 2007, Private Healthcare in Developing Countries, 2008a). Globally, approximately 40 percent of malaria patients seek treatment in the private sector (World Health Organisation, 2011).

In order to reduce the impact of infectious diseases such as TB and HIV and reach MDG 6, it will be critical to align the treatment practices of the private sector with international standards and ensure effective coordination of private sector TB services with national TB control programs. In Asia 55 percent of TB cases in 2007 occurred where a large percentage of clients utilize the private sector for care (Hazarika, 2011). A lack of coordination will lead to non-standardized TB diagnosis and treatment quality, as well as a lack of alignment with national TB program notification and control efforts. This in turn leads to increased air-borne transmission of TB, including drug-resistant strains, among the most vulnerable segments of the population such as children, pregnant women, the elderly and the HIV-infected.

These examples illustrate the importance of private sector health providers and how they can be a complementary partner in extending health outcomes to the poor. In the following section, we summarise a case study of donor engagement with the private health sector to deliver outcomes for the poor, pioneered by USAID which has been investing in strengthening the private health sector for two decades.

Case Study on Strengthening Health Outcomes through the Private Sector

Currently, USAID's flagship project in this area is the Strengthening Health Outcomes through the Private Sector (SHOPS) (SHOPS Project, 2012).[4] This is a five year project working in Asia, Africa and Latin America to increase the role of the private sector and, in particular, private health care providers in the sustainable provision of quality family planning, reproductive health, HIV, maternal and child health as well as other health products and services.

SHOPS often begins by conducting private sector assessments that map the landscape of private providers and then works closely with local stakeholders to prioritize areas for intervention. These range from strengthening private health provider business and technical skills, linking private providers with health financing options including insurance and contracting arrangements, and ensuring that private providers have access to quality products and information to support client needs.

The progress of the SHOPS Project provides useful lessons for the Australian aid program. Some examples of its achievements are summarised below:

[4] More information on the SHOPS Project is available at www.shopsproject.org .

- In Jordan, SHOPS reached 60,581 women with family planning and reproductive health counseling through community outreach activities. These activities are being scaled up and will be evaluated through a random control trial, which is set to commence in the coming months.
- Through the SHOPS pharmaceutical partnership program for zinc in Ghana, monthly sales of ZinTab have risen dramatically—from 86,000 tablets sold in January 2012 to 678,000 in April 2012 (when the training program began), to more than 2.2 million tablets in July 2012, following the launch of the mass media campaign. As of August 1, 2012, 536,000 zinc treatments have been sold to retailers, representing 51 percent of seasonal demand.
- In Paraguay in collaboration with the USAID | DELIVER project, SHOPS/Paraguay led the development and finalization of the operating guidelines for Paraguay's Contraceptive Security Committee or DAIA (*Disponibilidad Asegurada de Insumos Anticonceptivos*), laying the foundation for decision-making and activity planning for contraceptive security and efficient market segmentation across the commercial, NGO, and public sectors.
- In Uganda, SHOPS produced a replicable text message platform to improve provider performance and quality of care through text messages. Daily text messages were sent to 34 family planning providers at Marie Stopes Uganda, providing training reinforcement tips, reminders, and assessment questions. In a qualitative process evaluation, providers reported changes in their knowledge, practice, and motivation related to the four behaviors targeted in the messages, and positive increases in information-sharing on service standards and increased use of training reference manuals and clinical guidelines (SHOPS Project, 2012).

Potential AusAID Partnership Opportunities

This style of program would be applicable in Asia where there is already a large private sector servicing the poor. The forthcoming Indonesia Maternal Neonatal and Child Health Program, includes a private sector partnership component, which could be informed by the SHOPS experience. In PNG and the Pacific, where the private sector is growing, there is also an opportunity for AusAID to work with governments to develop mechanisms for creating and enforcing quality standards; enact regulations that are more encouraging of the private sector, and; improve access to capital to support private health care enterprises (International Finance Corporation, 2007).

Social Franchising

Social franchising is an approach to extending services to the poor using commercial franchising methods to achieve social goals. A social franchise is defined as a network of private health providers with the following characteristics: (i) outlets are operator-owned; (ii) payments to outlets are based on services provided, although the mechanism of payment may vary and may include client out-of-pocket payments, vouchers, third party insurance or other systems; (iii) franchised services are standardized, although additional, non-franchised products and services may also be offered; and (iv) clinical services are offered, with or without franchise-branded commodities (The Global Health Group, 2010b).

Within the health sector there are over 50 recognised social franchises that provide health services in developing countries. These include both for-profit and non-profit initiatives and the focuses range from family planning and HIV/AIDS testing, to tuberculosis treatment and the provision of safe deliveries (The Global Health Group, 2010b).

Social franchises offer individuals or small businesses an opportunity to join into a franchise network and benefit from a set of incentives offered only to franchise members. These benefits can include: training; branding and brand advertising; subsidized or proprietary supplies and equipment; ongoing support services; and access to other professionals in the same field. In exchange, the franchisee must comply with a range of requirements, often including the provision of certain socially beneficial services, meeting quality and pricing standards, and a fixed payment or a profit-share franchisee fee (Private Healthcare in Developing Countries, 2008b).

This model is able to leverage off the large number of pre-existing private healthcare providers that are often already present in many developing countries. Social franchises have the potential to add value to the healthcare operation by improving quality of primary healthcare provision through training; maintaining quality through monitoring; and enable greater awareness and better use of the existing private health providers. It can also signal to patients the presence of high quality providers through the use of trademarks and brand names.

Social Franchising Case Studies

(i) BlueStar Healthcare Network

Marie Stopes International (MSI) is a UK based NGO that uses franchising as a means of improving women's access to quality reproductive health services. MSI have 1,500 providers doctors, nurses, midwives, clinical officers or pharmacists) in developing countries across the world, delivering high quality voluntary family planning services to clients. MSI has a 'partial franchising' model, meaning only some of the franchisees' services and commodities are regulated by MSI and that the franchisee may offer additional health services that are not regulated by MSI. The services are then tailored for each social franchise network to best meet local needs. In return for a small annual fee, franchisees receive high quality but reduced-price commodities from MSI which they sell to clients according to an agreed pricing structure. They also receive extensive and ongoing training on client care, the provision of relevant services and stock control for instance, thus improving the range and quality of services (Marie Stopes International, 2011).

MSI social franchise in the Philippines, BlueStar Pilipinas, was launched in 2008 to increase the accessibility of high quality family planning services. Run by licensed mid-wives, BlueStar Pilipinas had 266 outlets serving over 150,000 clients by 2011. The services provided by the clinics include: oral contraceptives; condoms; injectables; Copper T; STI testing and treatment; cervical cancer screening; labour and delivery. Prices are affordable and clinics have an informal sliding scale of costs to ensure no one is turned away. BlueStar Pilipinas has also succeeded in integrating the network into the Philippines' National Health Insurance Program, enabling clients to obtain a Maternity Care Package. A study was conducted on the network and it found that BlueStar Pilipinas i) increased equitable access to high quality modern family planning methods especially among poor women; ii) successfully promoted IUDs; and iii) customers were highly satisfied with services as they perceived them to be of a high quality and midwives as competent and customer focused (Schlein et al., 2011).

(ii) Living Goods

An example, which would suit the social and cultural context in PNG, is Living Goods, operating in

Uganda. Living Goods is a social franchise that harnesses micro-entrepreneurs to use traditional trade and scale access to a wide range of essential health products at affordable prices. Living Goods operates an Avon-like network of independent health promoters who make a modest income selling affordable solutions to improve the health of the poor. Through these methodically screened and trained health promoters, Living Goods delivers uniform branded products such as anti-malaria treatments, clean-burning cook stoves, fortified foods, and solar lamps. Living Goods can sell goods at 10-40% below prevailing retail prices. Living Goods provides additional economic benefits for clients by saving transport costs, preventing lost income and reducing health spending through prevention (Speicher, 2011). By combining micro-finance and public health, Living Goods improves livelihoods by providing rural women with a reliable source of income as health promoters, and creates a sustainable system for improving access to basic health products (Living Goods, 2011). Recently the USAID SHOPS Project has developed a brief on agent distributor models like Living Goods, highlighting how these models can succeed in getting socially beneficial products to the poor (Kubzansky and Cooper, 2012).

Potential AusAID Partnership Opportunities

As part of a country portfolio of programs in countries like Indonesia and PNG, where AusAID has a significant and continuing interest in the health sector, a social franchising element could be built into a country strategy. Considerations to be built into any program based on MSI lessons learned (Marie Stopes 2011) include:

(i) Extensive training is required to ensure appropriate clinical or technical expertise as well as good customer service.
(ii) Branding, social marketing and communication activities should respond to barriers to the uptake of services and be pre-tested with the target audience to ensure they are culturally and contextually relevant.
(iii) Quality of care must be ensured at all times through ongoing monitoring and evaluation as well as refresher training courses for all franchisees.
(iv) Any pricing structure should reflect local circumstances; encouraging clients to seek certain services whilst increasing franchisees' income.
(v) Social franchise networks can increase their effectiveness and client-base by delivering government –contracted services and being accredited by a national social health insurance scheme if on exists or establishing a voucher scheme that offers clients subsidised services.

Managing a distributed clinical care network is a complex management task. Franchising is complex and for this reason requires highly skilled management. To justify this fixed cost in a subsidized program, the management, must be allocated across many franchisee outlets - the management cost to set up and oversee 60 clinics or pharmacy outlets is almost the same as for 2,000. "Franchising makes sense at large scale, and makes little or no sense at a small scale. Many of the programs in the developing world now were not designed, nor pushed by donors, to go to scale. This remains a significant failure of implementation and understanding" (Private Healthcare in Developing Countries, 2008b). Social franchising has potential to expand services to the poor, but would only be an effective strategy for the aid program, if AusAID were prepared to invest to take it to scale in a country.

Public-Private Investment Partnerships

Public-private investment partnerships (PPIPs) harness private financing and expertise in order to achieve public policy goals. PPIPs are an innovative way for resource-constrained governments in developing countries to improve health infrastructure and simultaneously improve healthcare service provision, while also addressing other system-wide inefficiencies. While many PPPs are concerned with the building and maintenance of infrastructure such as hospitals, PPIPs are also concerned with the delivery of clinical services.

PPIPs comprise long-term, highly structured relationships between the public and private sectors. They position a private entity, or consortium of private partners in a long-term relationship with a government to co-finance, design, build, and operate healthcare facilities, and deliver both clinical and non-clinical services at the facility. The structured relationship harnesses the respective strengths commonly associated with both the public and private sectors while still accounting for the profit motive of the private sector partners. The private sector is responsible for (and carries the risk of) construction delays, cost overruns, inadequate or poorly trained staff, and, inefficient care that fails to meet agreed-upon benchmarks. The government still retains responsibility for general oversight of quality and performance standards to ensure public health goals are achieved. The government remains the ultimate payer for the public health care at the facility. The private partner is paid based on service outputs at specified performance levels by the government and common methods for payment include capitation or global budgets (Sekhri et al., 2011).

The benefits of this approach include:

(i) The long term, shared investment results in mutual dedication and common interest in successful outcomes.
(ii) As return on the investment comes over time and is based on performance, it is difficult for either party to walk away from the partnership, strengthening its stability .
(iii) Utilising private capital spreads the government payment for the infrastructure over the useful life of the facility rather than requiring a large up-front payment. In some instances the government makes no payments to the private partners until facilities are completed and delivery of care begins, improving the feasibility of building the facility.
(iv) Unlike privatization, the government still retains ownership of the asset throughout.
(v) Through PPIPs the government's repayment includes maintenance over the life cycle of the asset, estimated at 30-35 percent of costs.
(vi) PPIP's enable stability in operational budgets though payment methods that put the private provider at risk for budget overruns and make payment contingent on outputs meeting defined performance standards.
(vii) Systemic quality improvements can also result as the integrated partnerships include explicit agreements on performance monitoring that specify measurable, internationally recognized standards.

(Sekhri et al., 2011, The Global Health Group, 2009, The Global Health Group, 2010a).

PPIP Case Study - Lesotho

Lesotho has a population of approximately 2 million and aging health system infrastructure. In 2007 as part of a national healthcare strategy, the Lesotho Ministry of Finance and Development Planning spearheaded a PPIP, and awarded a contract to Tsepong Ltd. to replace the tertiary hospital, which was in bad repair and consuming increasing amounts of government funds while delivering deteriorating services. Analysis of current facilities showed that by making an incremental increase

in the resources devoted to these facilities, several thousand more patients could be seen through a PPIP. The PPIP also incorporated a clear plan for improvements in access and quality (i.e. clear value for money) which reduced opposition to the model by physicians, staff and others. The contract is an 18-year partnership between the private partner consortium and the government of Lesotho to replace the existing hospital and operate two feeder clinics, thus providing the full range of primary, secondary, and tertiary care (Sekhri et al., 2011).

The private consortium involved has been designed to ensure buy-in from the community. Tsepong is comprised of Netcare (40%), Africa's largest private hospital and healthcare group; Excel Health (20%), an investment company for Lesotho-based specialists and general practitioners; Afri'nnai (20%), an investment arm of the Lesotho Chamber of Commerce; and the Women's Investment Company (WIC) (10%), an investment company comprised entirely of Basotho women (The Global Health Group, 2010a).

The financial structure of Lesotho's PPIP provides stability and assurance for the key stakeholders. The cost of the project is estimated at USD$120 million and is being funded by the Lesotho Government, Tsepong, the Development Bank of Southern Africa and, the Global Partnership for Output-Based Aid (an arm of the World Bank). The government also has a Partial Risk Guarantee from the World Bank so that Tsepong can continue to operate with partial coverage at its own expense should the government fail to make their payment. These added measures minimize the risk and provide additional assurance for the consortium of private partners (The Global Health Group, 2010a). Local equity of 40% (growing to 60%) ensures a vested interest by the local community. The facilities will help retain current staff and provide opportunities and attract Basotho doctors and nurses who have left the country to return and practice in Lesotho, reflected with locals making up 80% of all staff employed and 1% of payroll being spent annually on staff training.

Tsepong is responsible for the designing, building, and operation of the hospital and associated clinics. They are responsible for employing staff, the general management of the hospital, and also for providing clinical and non-clinical services. The specific terms of the contract commit the partnership to accommodate a 24 percent increase in outpatient visits and a 21 percent increase in inpatient visits. The cost to patients will not increase from levels prior to the PPIP, and the quality of care at the new, well-equipped facility will improve. As a result of the improved care, as well as better referral protocols it is estimated that the average length of stay will be reduced by five to ten days (The Global Health Group, 2010a).

Potential AusAID involvement

The PPIP model may provide a means for the Australian aid program to provide support for major hospitals in PNG in a manner that ensures provision of quality services over time. AusAID could take a lead role as partnership broker or lead role in the negotiating process; fund technical assistance for financial advice for the Ministry and other areas required to finalise the highly structured contract agreement. Further, AusAID could help augment the Ministry's payments to private contractors to provide added assurance and incentive for potential private partners to participate. As demonstrated by the Lesotho case study, PPIPs may also be supported by IFC or World Bank as well as government and private financiers.

There are a number of factors that need careful consideration in order for a PPIP to succeed. These

are discussed below.

Political will: PPIPs need strong, sustained political leadership. Given the length of such arrangement, this high-level commitment needs to be sustained and not change with the political changes of power.

Commitment from the private sector: Private sector partners chosen need to have a demonstrated commitment to serving patients and the government. PPIPs contracts need clear performance requirements to help ensure this remains the case.

A partnership that can adapt: The success of a PPIP depends on the ability of both the public and private sector partners to forge a relationship that can adapt to inevitable changes. This requires comprehensive planning and agreement as to the risk allocation and rewards, and methods for changes in prices, services and volume of services provided, moving forward. (Sekhri et al., 2011).

Independent M&E: An independent private or public agency should be engaged to collect and validate performance data, ensure all contractual obligations are met and administer or arbitrate financial rewards and penalties. The agency would be responsible to the government but needs to command the respect and trust of both public and private sector partners. The agency can also play an important role in maintaining public confidence in the PPIP arrangement (The Global Health Group, 2010a).

An additional risk to be managed is that within an overall country portfolio, PPIPs could steer disproportionate amounts of limited public resources to tertiary care for the urban population increasing inequity in access to care. This risk would need to be managed within the overall country portfolio and in the structure of the financing arrangements (Barnes, 2011).

Considerations in the Implementation of Private Sector Partnerships

The case studies discussed outline potential areas for AusAID to explore in its private sector engagement in the health sector. In presenting these case studies, we see it is essential that their pursuit be framed within the objectives of the Australian aid program, its broader policies, the context for poverty elimination and ultimately lead to benefits for poor people.

Private sector partnerships should be chosen on the basis of due diligence and the establishment of a case showing a clear benefit in utilising a private sector partner for reasons such as physical presence in an isolated area, unique delivery capacity and opportunity to reduce cost of delivery through leveraging private funds.

As highlighted in the PPIP case study, the selection of the right private sector partners is an important issue. AusAID would be wise to undertake ‘due diligence’ to identify ethical partners who already conduct ethical business practices when operating in developing countries (Thomason, 2011). This might include complying with the UN Global Compact, which has 10 principles that all businesses should follow with respect to human rights, labour standards, the environment and anti-corruption. In practical terms, these say: uphold human rights and do not take part in human rights abuses; avoid forced labour and child labour; take environmental responsibility, and; avoid corruption. Judgment of ethical practices could also include complying with the Global Reporting Initiative; one of the worlds’ most widely used standards for sustainability reporting, through which

organisations publicly report their economic, environmental and social performance.

Noting that the evidence base is still relatively light, it will be important to make concerted efforts to monitor progress and add to this evidence base to ensure that the private sector engagement is founded (and judged) on evidence.

There will inevitably be critics of engagement with the private sector and, in particular, the channelling of aid program funds to private sector partners. For this reason it would be prudent to adopt clear guidelines for use of public subsidy. We propose that public subsidy to the private sector should only be used in circumstances including: when it can add considerable value to achieving the objectives of the aid program; when markets, enterprises or institutions are significantly failing poor people and that public subsidy could potentially offer additional benefits, or; to enhance the facilitating environment for private sector participation to deliver outcomes for the poor. Public subsidy should not be given to support work that the private sector is already willing or can be persuaded to undertake without subsidy.

While engaging with the private sector offers substantial potential, there is not a natural fit between the motivations, expectations, ways of doing business, and people issues of the public and private sectors. The business engagement agenda brings together two constituencies, with different objectives, which don't usually talk to each other and, arguably, don't even speak the same language. The management of these differences is crucial to its success. Private sector engagement needs to be 'judgment free', accepting that private sector motivations are different from those of the public sector. The whole basis, content and forum for engaging with the private sector need careful consideration. The way of transacting business in the private and public sectors are fundamentally different and thus successful engagement will depend on finding ways to communicate and work with the private sector to achieve social benefits for disadvantaged populations.

Development agencies, including AusAID, have signalled their intentions to engage more extensively with the private sector to achieve development outcomes. Intended as a constructive contribution to emerging AusAID thinking on the execution of its engagement with the private sector, this paper has discussed four innovative private sector engagement strategies to support improved health outcomes. An acceptance of the fundamental differences between the public and private sectors will be pivotal to the success of the outlined opportunities, and private sector engagement more broadly.

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Ailing public hospitals in PNG: a radical remedy from Africa?

2013-07-08 06:07:58 Neelam Sekhri Feachem

The Prime Minister of PNG publicly decries the state of PNG hospitals, and regularly approaches his near neighbor Australia for help to improve them. The poor state of PNG hospitals is a consequence of a long slow deterioration of infrastructure, and weakening governance and management. Initially hospitals were made delegated functions when decentralization was first implemented, and were then re-centralized, followed by a well-intentioned, but insufficiently thought through move to place them under independent Boards reporting directly to the Health Minister. Port Moresby General Hospital, the leading tertiary referral hospital in PNG, arguably is not of a standard that the government, the medical and nursing fraternity nor the general public find acceptable. The highly motivated Board have recently appointed an expatriate hospital manager to try and turn the trajectory for the hospital. Will this be enough? Or is more radical surgery worth considering? Let us at least pose the question, so that it can be debated publicly. Can PNG do what Lesotho did to turn its tertiary referral hospital around – radically, decisively and very much for the better?

What did Lesotho do?

Lesotho, a small mountain kingdom, surrounded by the Republic of South Africa was confronted with decaying and low quality publicly run hospitals. The flagship hospital of the health system was the Queen Elizabeth II (QEII), the country's 100-year-old only national referral hospital, located in the capital Maseru. A legacy of British Colonial rule, QEII was crumbling, consuming increasing amounts of the government budget, and delivering poor and

deteriorating services.

Rather than repeat the failed investments of the past, the Minister of Finance, Tim Thahane, decided to experiment with a radical new idea. What would happen, he asked, if we offered the private sector the same amount of money we spend today on this run down public hospital? What could they offer us? Could we get better quality and better services for the people of Lesotho, at the same price?

The answer has been a resounding yes.

Enter the Public Private Integrated Partnership

A Public Private Integrated Partnership (PPIP) is an innovative PPP in which the government enters into a long-term contract with a private operator to build, design, operate and deliver a full range of clinical services to a population. This model harnesses private capital and management expertise, while retaining public ownership and oversight of health services. Experience in other countries, particularly in Valencia, Spain, has shown that the model can have a significant impact on the quality and efficiency of health care. [1]

But can this work in a low-income country? Lesotho's example is instructive.

Given that it had to make a major infrastructure investment on QEII, the PPIP solution met all of the government's key policy goals by:

- Making capital expenditures affordable in the near term
- Providing Government budget stability through defined and predictable health expenditures
- Transferring risk to the private sector for construction delays or cost overruns for a large and complex building project
- Transferring significant operational risk for the delivery of complex health care services, while capturing the efficiencies of private sector management
- Providing an economic engine for growth for locally owned businesses.

Working with the International Finance Corporation (IFC) as transaction advisors, the government issued an open international tender which posed a challenge to all bidders: for the same level of expenditure as QEII, how much more could the private sector deliver in quality, breadth, and volume of health care services?

After a formal and transparent bid process, the Tsepong Consortium was awarded an 18-year contract to build a 425-bed hospital linked to three primary clinics, offer a full range of secondary and tertiary care (some of which had previously been referred to South Africa); integrate hospital services with primary care for Maseru; and make a major commitment to enhancing the limited human resources capacities of the country. As in all PPIPs, the government retains ownership of the assets, and the facilities

must provide services to the population originally served by the public facilities, at no additional cost to patients.

Tsepong is jointly owned by Lesotho doctors, who also provide specialist services to the hospital; doctors and specialists from South Africa, a local firm for Basotho women, members of the local chamber of commerce, and Netcare Limited, a South African hospital management firm, and a South African private health care provider.

The new arrangement represents a major shift in role for the Ministry of Health from a provider to a purchaser of care, with responsibility for improving value for money and quality of services provided to the people of Lesotho. To assist the Ministry of Health in this unfamiliar role, an Independent Monitor has been appointed to measure compliance with the detailed performance indicators specified in the contract and to assess associated penalties for not achieving performance levels. Indicators cover a full range of clinical service quality, equipment, drug supply management, information technology, and staff certification and training. For example, 85% of patients with a provisional diagnosis of myocardial infarction must receive aspirin within 30 minutes of evaluation; and the fully automated medical record system must be up and operational at least 99% of the time. In addition, after an initial stand-up period, the hospital is required to obtain accreditation by the Council for Health Service Accreditation of South Africa.

And what about the money?

The PPIP structure provides for co-financing of capital expenditures for construction, refurbishment and equipping the hospital and associated clinics; and also provides for an ongoing payment from the government to the Consortium for service delivery at the facilities. Both repayments are contained in a single unitary payment. This payment did not begin until after the hospital was opened and started seeing patients. This was 3 years after the contract was signed. All upfront expenses were covered by the Consortium.

Under the contract Tsepong provides almost 30% more hospital admissions and 87% more outpatient visits for an estimated 7% increase in operating costs over Queen II. If service volumes exceed contracted amounts, additional fees are paid to Tsepong, but the government must approve these increases. Under this payment structure, the government is basically contracting for a fixed volume of patients (inpatients and outpatients). This volume based payment structure, has not been without its problems, and the cost of the additional public activity has been a source of some tension between the government and the operator.

This is not the only payment structure option for a PPIP and it is worth looking at how other countries have dealt with payment structures differently. In the Turks and Caicos for example, the operator is paid on a capitation basis, similar to the Alzira model in Spain. This model has some advantages as it

incorporates a broader healthcare picture which includes primary care, rather than the traditional “let’s build a big Hospital” approach.

The way it is now

The clinics and hospital were completed on time and on schedule. After one year of operation in the new Queen Mamohato Memorial Hospital, maternal mortality has decreased by 50% despite treating much more complex cases. Overall patient mortality decreased from 12% to 7% and there has been a large increase in patient satisfaction. A range of clinical capabilities have been established for the first time in Lesotho, such as neonatal intensive care, thus saving lives and reducing expensive referrals to South Africa. A fully electronic medical record and reporting system has been implemented to allow detailed performance monitoring on a large set of quality and service indicators.

A key objective of the government was to increase human resources capacity in the country. There has been extensive training of physicians and nurses. Previous shortages of doctors and nurses have been addressed through international recruitment and the return of Basutho professionals to the country.

The tangible increase in quality, service and facilities has come at a price. In the first year, the hospital surpassed its negotiated volumes. The PPIP represents an island of excellence in a sea of mediocrity. In the longer run, the strengthening of other parts of the health system (including district hospitals and outlying health facilities) remains a priority, so that patients will not need to travel to the capital to get quality care. But, given the previous state of affairs, this is a good problem to have.

Lessons for Papua New Guinea

This approach could be an option worth considering in PNG. However, it represents a significant change in mindset for PNG and the generally accepted view of how the health system operates. PNG has a tradition and comfort level with government-owned and operated hospitals. To follow Lesotho would mean that the government would need to make a paradigm shift from “provider” to “steward” of the health system. This would require both new skills, and a new way of understanding the government role in ensuring health services are provided – but not necessarily providing them.

We expect that such a transition from a publicly owned and run hospital to a PPIP such as in Lesotho would be challenging. Doubtless, opposition politicians will accuse the government of privatizing the health care system, even though all facilities remain in public ownership. Most likely, trade unions would object. Initially, doctors with entrenched interests in the old ways may resist the change. But experience suggests that they quickly become converts once they experience the greatly improved working conditions and clinical opportunities.

These problems can be overcome but they require strong and bold political and technical leadership.

The fundamental driver of change is an unequivocal recognition that the current system is broken and that further investment will not fix it. Something new is needed. Public hospitals in Papua New Guinea are an extreme example of the inability of the post-independence period to maintain the standards that should be enjoyed by the population. Despite the best efforts of many and funding from government and donors alike, hospitals continue to under perform. If you keep doing as you have always done, you will get what you have always had… a new solution is needed.

The experience of Lesotho needs at least to be on the table and in the public debate. We believe that it is possible to change the discourse on hospitals in PNG – but is there the political will and courage to accept the radical surgery to do so?

Neelam Sekhri Feachem is the CEO of The Healthcare Redesign Group Inc. Jane Thomason is the CEO of Abt JTA.
Information about the Lesotho PPIP is taken from: The Global Health Group, University of California San Francisco; and PWC, 2013, "Health system innovation in Lesotho: design and early operations of the Maseru public-private integrated partnership." Healthcare public-private partnerships series, No. 1. Available here.

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[1] See Sekhri, Feachem and Li, 2011, "Public-private integrated partnerships demonstrate the potential to improve health care access, quality, and efficiency," *Health Affairs*. Vol.30, No.8.; and Trescoli, Ferrer and Torner, 2009, "The Alzira model: Hospital de la Ribera, Valencia Spain," in Rechel, Erskine, *et al* (eds.), *Capital investment for health: case studies from Europe,* World Health Organization, Copenhagen.

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NORTH FLY HEALTH SERVICES DEVELOPMENT PROGRAM

The North Fly Health Service Delivery Program (NFHSDP) has dramatically improved health service delivery in North Fly since the Program commenced in 2009. We believe that health service delivery can continue to be substantially improved with a five year extension to the Program building on the achievements to date and promoting sustainability.

In August 2008 the OTML Board invested PGK 20 million, plus operational support in improving health services across the North Fly District. This investment was made by the Board on the basis that despite contributions by OTML of over PGK 5 Billion in benefits to PNG, Western Province remained one of the country's least developed provinces. National Department of Health 2008 Annual Sector Review reported declining outreach patrols and low measles and third dose triple antigen vaccine coverage and more than 40% of women received no antenatal care.

North Fly Health Services Development Program achievements to date:

- Partnership between health service providers to improve communication and coordination
- Immunisation coverage for pentavalent vaccine have been 74% plus for the last three years
- More than 400 outreach patrols per annum, for the last three years compared to 118 in 2008
- More than 90% of women now receive antenatal care
- 95% of women give birth with a skilled health worker
- Nearly 100,000 bed nets have been distributed in cooperation with Rotarians Against Malaria
- Incidence of malaria across the district has nearly halved (400 to 207 per 1000 population)
- Health facility infrastructure has been rehabilitated
- Cold Chain and communication systems put in place

WHY THE INVESTMENT IN HEALTH NEEDS TO BE CONTINUED

Whilst the above indicators highlight significant improvements, the District needs to continue to build upon the foundation created through the NFHSDP to create a sustainable health service beyond the life of mine. Withdrawing support to North Fly at this stage may risk reversing the gains in health from the last five years. The partners have identified many areas for further development, including:

- Childhood illnesses, specifically the incidence of diarrhoeal disease
- Provision of equipment and infrastructure to support basic and emergency obstetric care
- Build capacity for District management to drive program delivery
- Supporting communities to take responsibility for their own health

"Discussions with provider partners suggest the NFHSDP activities have made a significant difference to the level of activity and the quality of the outreach in the district."

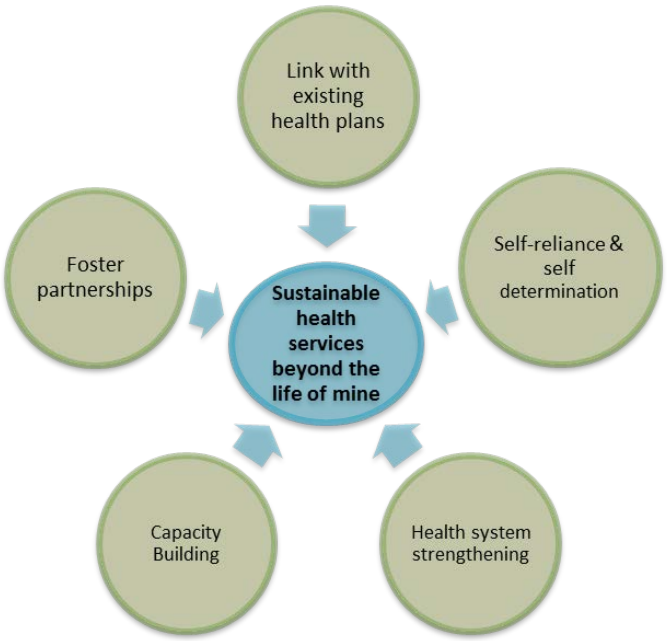
AusAID Capacity Diagnostic Report Western Province - February 2012

Clearly the new Governor of Western Province has created an environment of cooperation and partnership that wasn't previously present. The District Administrator has this year taken over as the Chair of the senior health coordinating committee from the NFHSDP Program Manager. These new developments create an opportunity to develop sustainable health service delivery in North Fly during the coming five years.

PROGRAM DESIGN AND PRINCIPLES

NFHSDP Phase 2 was designed through consultation with the Program Partners and addresses the issues raised by these Partners. The proposed program was designed based on the following principles:

- The program must **link with existing health plans** including the *National Health Plan 2011-2020* and the *Western Province Strategic Health Plan 2012-2016*.
- Continue to **foster partnerships** between health service providers and extend partnerships to the non-health sector.
- A focus on **capacity building** for the existing health providers, health workers and village health volunteers.
- **Strengthen the health system** to provide the health facilities and services that meet the minimum standards under the National Health Service Standards.
- Promoting **self-reliance and self-determination** for the community.
- Support improvements to financial management with a view to **sustainability** of the health services beyond the life of the program.



WHAT THE PROGRAM WILL DO

Continue

- Continue to fund staff and operations at Tabubil Urban Clinic and **investigate feasibility of transitioning funding** and management over to the Fly River Provincial Government and Divine Word University respectively

Improve

- **Improve services** at Kiunga Hospital to bring up to a District Hospital level service
- Improve rural health services in line with **PNG National Health Service Standards**

Support

- Support **frequent integrated outreach patrols** which provide a comprehensive range of services for both treatment and preventative care

Deliver

- Deliver primary health care through the Healthy Islands concept:
  - Village Health Grants Scheme to provide communities with the necessary resources and support to implement the Healthy Islands concept, for example, materials and technical support for construction of Ventilation Improved Pit toilets to be constructed by community members
  - Support establishment or reinvigoration of Village Health Committees
  - Strengthen the Village Health Volunteers program
  - Engage non-health sector such as the private sector, schools and community policing in supporting intersectoral collaboration for health service delivery

Information and Communications Technology for Health

Mobile Health

Mobile health (mHealth) is where mobile devises such as mobile phones and personal digital assistants, are used to support health service delivery such as patient care, health worker training and supervision and health information reporting. Given the limited transport options in North Fly and the challenges outreach teams face in reaching communities and the recent expansion of the Digicel network coverage, m-health has been included in NFHSDP Phase 2 as an option to explore for enhancing health service delivery.

> *"OTML, through a variety of direct and indirect funding and implementation mechanisms, has presided over the development of an extensive network of high quality health interventions that have improved the health status of the population of North Fly. This is particularly the case over the last three years, with the OTML-initiated and financed North Fly Health Services Development Program."*
>
> Mining companies and health service delivery in Papua New Guinea: Ok Tedi Mining Limited case study – Mining Health Initiative – submitted to AusAID

Geographical Information Systems (GIS)

GIS mapping provides a visual representation of large amounts of data. It provides the opportunity to identify relationships between different health, geographic, climatic and demographic factors for analysis and planning. Data-rich maps of North Fly could be used for:

- mapping diseases and risk-factors to identify hot spots for prevention activities, for example, malaria cases, bed net distribution and climate variables
- mapping for health care utilization for example human resources, equipment, infrastructure, population, access to utilities and inpatient and outpatient data

In NFHSDP Phase 2, we hope to build capacity for GIS both for the Program and at the North Fly District Health Office.

Website

An important part of the program is communicating the purpose, activities and results of the program to Partners, stakeholders and the public. To support communication, we will develop a Program website with regularly updated information. The website will have the following:

- Information about the Program and the North Fly District
- Good news stories
- Digital media, for example, interviews with Program Partners
- Interactive maps with facts and photos for health facilities
- Performance of the program