Partnership Priority Outcome 2: Improved Health

Aim

Under the Improved Health priority outcome, the Partnership will strengthen health service delivery to accelerate Vanuatu's progress towards health Millennium Development Goals (MDGs). Vanuatu has achieved some impressive gains in health outcomes, yet substantial service delivery challenges and equity issues remain. Under-five mortality is decreasing in line with the MDG target, but most child deaths are still from preventable causes (such as pneumonia, diarrhoea and neonatal conditions) that could be averted with improved primary care. Infant and under-5 mortality rates are higher in rural areas, as well as among less wealthy households. Immunisation is far from universal at 42 per cent of 1 to 2 year old children, and varies from 57 per cent in Shefa to 11 per cent in Torba. Maternal health services also vary greatly by province. Skilled birth attendance averages 74 per cent nationwide, reaching 95 per cent in Port Vila but only 32 per cent in Torba.

Most mortality and morbidity in Vanuatu are the result of diseases that are preventable or manageable by public health and primary care services. Recognising this, the Government of Vanuatu is committed to a primary health care approach, as set out in the draft 2009 Health Sector Policy. The Partnership supports this vision. More people, particularly at-risk families in remote areas, will be able to access quality health services. More health conditions can be treated locally and result in fewer admissions to high-cost facilities. Achieving this vision means strengthening the ability of the health system to deliver primary health care, and ensuring adequate resources reach public health and primary care services.

To deliver on this vision, the health system needs to be strengthened to ensure primary health care services can be delivered nationwide. To strengthen the health system, the Partnership will provide financial and technical support towards the agreed objectives of:

Enhanced access to, and quality of, health care services: Effective delivery of primary health care in rural areas depends on a key 'package': trained and supported personnel, adequate facilities and equipment, and a strong health supply chain. With over 100 vacant nursing posts, Vanuatu is experiencing a critical nurse shortage and urgently needs to train more nurses and nurse aides. Provincial facilities require maintenance and upgrading in a planned and prioritised way. While improving with Australian assistance, the drug supply system has been through phases of frequent stock-outs and delays in delivery. Improved provincial management is also needed.

Controlling and progressively eliminating malaria: Malaria incidence is already being sharply reduced through intensified control, falling to an estimated 14.4 cases per 1000 in 2008. The Partnership re-affirms Australia's commitment through the Pacific Malaria Initiative to supporting Vanuatu's goals in intensified malaria control and progressive elimination. Vanuatu aims to, by 2014, stop all deaths from the disease, reduce parasite incidence by 70 per cent to 7 per 1000, and eliminate falciparum and vivax malaria from Tafea Province.

Improved budgeting, financial and expenditure management: Government of Vanuatu has sound underlying public expenditure management systems, and a new Development Budget process that will enable joint budgeting of donor and Government resources. However, Vanuatu's Ministry of Health (MoH) has experienced difficulty in budget management, with over-runs resulting in large discrepancies between budgets and actual spending. Allocations are concentrated on administration and hospitals, with less than a quarter of the budget directed to community health. Financial management difficulties also impede the flow of budgeted funds to provinces and facilities.

Strengthened health information system to track MDG progress and support evidence-based decision-making: Although critical for management, Vanuatu's health information system is not presently functioning effectively. The system does not adequately cover provincial facilities. Regular management reports are not being produced. The system needs streamlining to reduce the reporting

burden on facility staff and increase compliance. A strong HIS will also be a critical to inform the rapid responses needed for successful malaria elimination.

To implement the Partnership commitments, Australia and Vanuatu will develop a new Vanuatu Health Sector Program (VHSP), through which Australia will make a multi-year commitment on overall funding levels for the sector. This is consistent with the process to develop a program-based approach in health recommended by the 2009 Office of Development Effectiveness Evaluation of Australian Aid to Health Service Delivery. Bilateral Australian support is currently delivered through seven separate activities. The VHSP will, over time, encompass all bilateral Australian assistance. It could also form the basis of a mechanism for more effective and coordinated support from other development partners.

Measurement

Vanuatu and Australia will adopt the following indicators and targets. These indicators are consistent with Vanuatu's draft 2009 Health Sector Policy. Further details on measurement are at Attachment 3.

#	Indicator	Baseline (year)	2015 Target
Maternal and Child Health			
1.	Under-five mortality rate	34.1 (2007)	20.7
2.	Infant mortality rate	28.1 (2007)	Improvement
3.	Maternal mortality ratio	68 (average of 2000-2007)	Improvement
4.	Number of maternal deaths	TBD	Reduction
5.	Proportion of deliveries assisted by a skilled birth attendant (%)	74 (2007 MICS)	Increase
Health system access and coverage			
6.	Routine measles vaccination coverage (%)	37.1 (2007 MICS)	80 (2012) 90 (2015)
7.	Routine triple antigen vaccination coverage (%)	58 (2007 MICS)	80 (2012) 90 (2015)
8.	Health facilities that experienced stock outs of essential drugs (%)	To be established by end 2010	
9.	Rural health facilities with facilities rated 'adequate' or better (%)	To be established by end 2010	
10.	Nursing workforce density (per 10,000 population)	20.7 (2009)	25
11.	Proportion of health facilities regularly reporting through HIS (%)	45 (2008)	95
Malaria, HIV & STIs, NCDs			
12.	Annual parasite incidence	23.3 (2007)	7 (2014)
13.	Provinces from which malaria is eliminated	0	1
14.	STI prevalence: Chlamydia prevalence among pregnant women (%)	25 (2008)	Improvement
15.	Share of hospital admissions related to non-communicable diseases	TBD	Improvement
Financial Management			
16.	Share of GoV health sector expenditures directed to Provincial and Community Health (%)	19.9 (2008)	Increase
17.	Share of GoV health expenditures reaching provinces and rural facilities (%)	To be established by end 2010	
18.	Share of GoV health sector expenditures spent on non-personnel costs (not including termination payments) (%)	39 (2008)	Minimum standard
Aid Effectiveness			
19.	Share of Australian aid to health through GoV systems (%)	56 (2008-09)	Increase

Resources

Australia has invested between $3-4.5 million in annual bilateral support for the Vanuatu health sector over the past decade. Australia intends to make a commensurate multi-year commitment on overall funding levels for the sector. This will be developed as the details of VHSP are finalised, intended by end 2009. Indicative health sector resourcing levels are shown below. These are existing commitments (through the Pacific Malaria Initiative and other bilateral health sector programs) plus potential VHSP commitments.

	Australian funding for the Vanuatu health sector (A$ million)			
	Current commitments		Indicative	
Year	Malaria Initiative	other bilateral programs	VHSP (proposed)	Total through the Partnership (existing + VHSP)
2009 (last 6 months)	0.75	0.7	0.2	1.7
2010	1.5	1.4	1.8	4.7
2011	0.75[†]	0.2	4.0	5.0
2012	–[†]	0.05	4.9	5.0
Total	**3.0**	**2.4**	**10.9**	**16.3**

[†] Future commitments through the malaria initiative will be directed through the VHSP.

Australia will also continue to provide support to Vanuatu's health sector through regional mechanisms.

Implementation Strategy

Use of Vanuatu Government systems: Vanuatu and Australia will focus on working in ways that make lasting improvements to the systems required for service delivery: the public financial management, procurement and logistics, and management and workforce support systems that are critical to efficiently delivering health services to communities throughout Vanuatu. The approach of seeking to use and strengthen Vanuatu Government systems (budget, disbursement, procurement and audit) in delivering support is consistent with the principles of the Paris and Accra declarations.

Implementing Arrangements: Vanuatu and Australia agree to develop a new Vanuatu Health Sector Program (VHSP). New activities to support the Partnership objectives in health will be implemented through VHSP. Where continued beyond existing arrangements, current bilateral activities will be continued through the VHSP.

Through VHSP, Vanuatu and Australia will target:

- Enhanced access to, and quality of, health care services. Upgrades to rural health facilities will be part of a strategic and prioritised program to address health infrastructure development and maintenance. Vanuatu will develop a rolling plan for infrastructure development and maintenance aligned to strategic priorities, with a costed annual implementation plan, commencing in 2010, and a strategy outlining how implementation will be managed (scoping, design, procurement, management). Progress in this area, and the scale of Australia's investment, will be closely linked to demonstrated improvements by Ministry of Health in financial, procurement and asset management.

  To strengthen the health supply chain, Vanuatu will utilise the expertise of a Logistics Specialist to diagnose health supply chain challenges, and support planning and implementation of targeted

improvements. Australia will provide Technical Assistance and systems investments as required through the VHSP. Vanuatu will manage the responsibilities of ongoing recurrent costs.

To expand the nursing workforce, Vanuatu will increase the nursing intake at VCNE, commencing with 30 students in July 2009, and 30 students in January 2010. Australia will provide support for expanding training capacity, including interim support for increased VCNE staffing. Vanuatu will commence training of nurse aides, examining options for outsourcing management and delivery. Vanuatu will budget for and manage the recurrent cost implications for increasing the nurse and nurse aide workforce, including the appointment of 60 new graduate nurses in 2012. Vanuatu and Australia will also focus on improving the quality of training, including through enhanced practical training, and curriculum development.

- Improved public expenditure management. The Partnership will include a sequenced program to strengthen budget management, cost service delivery, and improve funds flow to the periphery. Australia will provide long-term specialist support for budget and planning. Vanuatu and Australia will jointly budget increased resources for health through Vanuatu's Development Budget process. The long-term aim is to establish a multi-year costed expenditure framework, robust formulation of new policy proposals, effective dialogue with donors, and high quality interaction over budget priorities with the Minister and central agencies.

  Financial and procurement management will also be strengthened. Vanuatu will implement the recommendations of the 2008 MFEM Internal Audit Unit review of MoH financial management of donor funding. Vanuatu and Australia will together implement the recommendations of the MoH Finance and Procurement Assessment. This may include additional Australian support for financial management processes.

- Strengthening the Health Information System (HIS). Vanuatu will take the lead in implementing recommendations from the 2009 HIS Mapping Mission. Streamlined reporting requirements and improved information flows will increase regular urban and rural reporting. Information management and document flows both to and from the Ministry and health facilities will be developed in concert with health sector logistics improvements. Vanuatu will commence preparing and distributing regular reports from the HIS on system and health indicators. Australia will provide requested technical assistance and financing for system improvements, in coordination with other donors.

Through existing arrangements, then subsequently through VHSP, Vanuatu and Australia will target:

- Controlling and progressively eliminating malaria. Vanuatu will continue to implement the Malaria Action Plan 2008 – 2014. Australia will continue to provide support through the Pacific Malaria Initiative: financing for the consolidated program budget jointly with the Global Fund; technical and management support through the Pacific Malaria Initiative Support Centre (PacMISC); and advice through the Malaria Reference Group. Vanuatu and Australia commit to further alignment and harmonisation of arrangements with the Global Fund, SPC and WHO.

- Effective support to the hospital sector. Australia currently supports four international medical specialists at Vila Central Hospital (VCH) to provide and oversee clinical services and build capacity. There is a need to ensure Vanuatu derives full value for money from this, noting the Partnership's emphasis on strengthening service delivery at the periphery and Vanuatu's commitment to a primary health care approach. Australia will continue to provide support for the hospital sector where it is used effectively to build capacity. Vanuatu and Australia will jointly review its utilisation, capacity building and progress towards localisation. Vanuatu will develop a New Policy Project for its 2011 Budget to coordinate continued support to the hospital sector through VHSP.

- Effective support to village health workers. Australia has supported a long-running partnership between Ministry of Health and Save the Children in providing training and supportive supervision to village health workers. Current Australian financing for the MoH contract with SCA will conclude in June 2011. Government of Vanuatu will consider future support using the New Policy

Project process through its 2011 Budget, with potential continued Australian resourcing to be managed through VHSP.

- Strengthening National Response to HIV & STIs. VSO Vanuatu is a key partner in the response to HIV and STIs. Current Australian financing will conclude in March 2011. Government of Vanuatu will consider potential future support using the New Policy Project process through its 2011 Budget, with potential continued Australian resourcing to be managed through VHSP.
- Addressing non-communicable diseases. Potential support for prevention and control of non-communicable diseases (NCDs) will be considered through Vanuatu's 2010 and 2011 budget processes. Potential support would complement technical assistance at the regional level, in line with the Pacific Framework for the Prevention and Control of NCDs and the national NCD strategy.

Gender and Inclusion: Through its focus on primary health care, the Partnership will provide strong support for maternal and child health. The impact of domestic violence, a significant issue in Vanuatu, is exacerbated for women in rural areas due to limited access to basic health treatment. Improved primary health care will help ameliorate its impact. Access to primary health care is the first point of support and official recording for most victims of domestic violence. Improved information from frontline health workers and reporting is fundamental to assisting women and children with access to justice under the Family Protection Act.

Vanuatu's most severely at-risk households are scattered throughout the population, particularly in rural areas. These include households with disabled individuals, who tend to grow up in poor households and drop out of school. They can face lifelong hardship without government intervention. Coverage and effectiveness of traditional forms of social protection are being slowly eroded by the fast-growing and increasingly urbanized population. Inclusive development and the social protection provided through effective and accessible primary health care will be promoted through a systems-focus on improving service delivery to the periphery.

The well-being of youth is taking on increased urgency. The upcoming census is likely to reveal significant urbanisation. Youth are a large, growing, and vital demographic group. Support for public health programs with a youth focus, including education and services on HIV/STIs, will help address youth needs. Continued partnership with NGOs and civil society will also be important.

Non-state actors: Australia has supported a long-running partnership between Ministry of Health and Save the Children in providing training and supportive supervision to village health workers. VSO Vanuatu is a key partner in the response to HIV and STIs. Community committees play a key role helping to build and maintain their aid posts and health facilities. Engaging with the private sector can be an effective way to overcome constraints in implementation capacity. Through the Partnership and the key delivery mechanism of the new Vanuatu Health Sector Program, Australia will support and encourage Vanuatu to build on these partnerships with non-state actors.

Donor Coordination: Vanuatu and Australia will promote coordination between development partners working on health. The main agencies currently involved are WHO, UNICEF, JICA, and the Global Fund to fight AIDS, Tuberculosis and Malaria. As a first step, AusAID will commence convening regular meetings of the local health donor group. In the long term, the intention is that VHSP, particularly through the focus on improved budget development and management, will support Vanuatu to establish a multi-year costed expenditure framework that enables coordination of donors to within a single sector program.

Mutual Commitments

Australia commits to:

(a) provide predictable multi-year financing for Vanuatu's health sector through a new Vanuatu Health Sector Program, to:

- support Vanuatu's vision of improved primary health care
- streamline Australian support through a single sector program.

(b) continue to support Vanuatu's intensified malaria control and elimination goals.

(c) more effective donor coordination.

(d) continue to use and strengthen Vanuatu Government systems.

(e) provide technical assistance to support the implementation of these investments.

Vanuatu commits to:

(a) strengthen financial management and accountability, including:

a. sound financial and procurement management for all donor and Government health funds, in full compliance with legal obligations under Vanuatu's Public Finance and Economic Management (PFEM) and Government Contracts and Tenders (GCT) legislation

b. implementing the recommendations of the 2008 MFEM Internal Audit Unit review of MOH financial management of donor funding.

(b) ensure that by 2012 all donors use Vanuatu Government systems for budgeting (using New Policy Projects through the Development Budget process) and where possible disbursement (through the Development Fund Account) for health investments implemented by Government.

(c) sustainable financing of the health sector through efficient management of hospital costs and ensuring greater predictability and transparency of funding for provincial health services.

(d) effective planning, management and contracting of upgrades to health facilities, with transparent and appropriate criteria for selecting and prioritising works.

(e) reform the health information system in line with the recommendations of the 2009 HIS Mapping Mission and produce a regular report on system and health indicators by end 2010.

(f) budget for and manage the recurrent cost implications for increasing the nurse and nurse aide workforce.

(g) improved utilisation of support for clinical capacity building at Vila Central Hospital to facilitate progress towards localisation of Heads of Department roles, including annual reporting of progress towards localisation.

Attachments

1. Partnership Priority Outcome statement: Improved Health
2. Measurement annex

Attachment 1: Partnership Priority Outcome Statement: Improved Health

Joint Commitments: The Partnership will strengthen health services and accelerate progress towards health MDGs, through:

- **Enhanced access to, and quality of, health care services**, particularly for rural communities, including a strengthened health supply chain, strengthened community nursing, and upgraded facilities
- **Controlling and progressively eliminating malaria**
- **Improved budgeting, financial and expenditure management**
- **Strengthened health information system** to track MDG progress and support evidence-based decision-making.

Target Results:

- Under-five mortality rate reduced from 34.1 per 1000 in 2007 to the MDG target of 20.7 per 1000 by 2015, and maternal care improved with an increased percentage of deliveries supervised by skilled staff
- Increased routine measles and triple antigen vaccination coverage of one year old children to 80 per cent by 2012 and 90 per cent by 2015
- Reduced malaria incidence nationwide by 70 per cent and elimination in Tafea
- Increased proportion of health sector expenditures that reach provinces and rural facilities.

This 'Partnership Priority Outcome 2: Improved Health' is included in the Vanuatu-Australia Partnership for Development signed by Prime Ministers Natapei and Rudd 27 May 2009.

Attachment 2: Measurement

Indicators: The Partnership will be tracked by a balanced set of indicators. The aim is for this set of Partnership health indicators to complement a set of *Health Indicators* being developed by MOH to monitor and evaluate the Health Sector Policy. The indicators are intended to follow accepted international standards for definition, purpose and calculation method. Definitions and notes for each of the selected Partnership for Development indicators for Health are provided in the table below, covering rationale, primary data sources, estimation/calculation, publication and timing, responsibility for preparation, and how targets were set. The indicators are intended to monitor both health outcomes as well as success in addressing health-system constraints that impede the attainment of these goals.

Targets: Targets for 2015 are set at the value corresponding to achieving the corresponding Millennium Development Goal, or, for system or process indicators, values anticipated as required to achieve the associated MDGs. Reflecting the general weakness of data, interim targets (for 2012) have not been set. Interim targets may be set through subsequent Partnership discussions as health data are improved. Baselines for some targets, such 'Proportion of health facilities that experienced stock outs of essential drugs' are not yet able to be established, as reliable data are not yet available. Efforts to strengthen information management in these areas will be a focus of Partnership implementation.

Data sources: Underlying data sources are essential from either from population measurement (surveys) or statistics from internal service-based information systems.

Major relevant surveys are the census (the next census is due in 2010) and Multiple Indicator Cluster Surveys. Other relevant surveys include sub-sector specific surveys such as the second-generation surveillance surveys of HIV and other STIs as well as NCD risk factor surveys. In the context of weak routine data collection (HIS and vital registration), population surveys have a particularly key role to play.

The 2010 census will be an important opportunity to improve data. It will be important to include a direct question to assess recent mortality: "Has anyone from this household dies in the last 12 months, if so, age and gender." It will also include a children ever born/ children surviving analysis (comparable to the MICS methodology). Census results are expected to be published in 2011.

A nationwide Multiple Indicator Cluster Survey (MICS) was conducted in 2007 and early 2008 with support from UNICEF. Preliminary data were released in April 2008 and the final MICS data were released in June 2009. Vanuatu was part of the third round of Multiple Indicator Cluster Surveys. The fourth round of Multiple Indicator Cluster Surveys (MICS 4) is scheduled for 2009-2011. Vanuatu's inclusion in MICS 4 would be a strong source of data for measuring progress against health Partnership targets. It is not yet clear whether Vanuatu's participation in MICS 4 is planned. UNICEF has stated its preparedness to provide assistance to countries at more frequent intervals - every three years instead of every five years. Vanuatu considering undertaking a hybrid MICS and Demographic Health Survey (DHS) in 2011. The National Statistics Office includes in its Strategic Plan 2008 – 2013 the intention to undertake a DHS in 2011-2012.

Second-generation surveillance surveys of HIV and other STI risk behaviour were conducted in Vanuatu in 2005 and 2008 (including an STI Prevalence Survey among pregnant women, behavioural survey among youth, and HIV surveillance at an STI clinic). A 2005 NCD risk factor survey has also been undertaken.

Australia is supporting further research into Strengthening Mortality and Cause of Death Reporting in Pacific Island Health Information Systems. The research is led by Principal Investigator Prof. Richard Taylor of the School of Population Health, University of Queensland. It is expected to support

development of more reliable mortality estimates as well as identify areas for HIS and vital registration strengthening. In Vanuatu, where most deaths occur away from the hospital system, causes of death will be validated through a verbal autopsy survey. Work commenced in 2009 with data collection to be complete early in 2010. Analysis will continue throughout 2009, in accordance with the original research plan. Draft estimates of level of mortality and causes of death patterns are expected to be available for discussion with participant countries, including Vanuatu, towards the end of 2009.

Relevant internal service-based information systems are the main Health Information System and the Human Resource Management Information System. Some public health programs also separately collect data and prepare reports.

The Partnership will use a mix of internationally-reported MDG data and data directly prepared and reported by the Ministry of Health. Use of internationally-reported MDG data recognises the limitations in the data available, particularly for difficult-to-measure mortality indicators (important to assess progress on MDG 4 and 5) where modelled estimates are required. It also facilitates cross-country and longitudinal comparison. However, such data points are not especially timely. For this reason, some process indicators and that can be directly derived from MoH systems will also be developed and utilised.

The long-term intention is to source data directly from Government of Vanuatu systems, using the Health Information System (HIS) as the primary source. However, the HIS is not currently functioning effectively. Ministry of Health is not currently producing a consolidated annual report of health indicators. However, it is intended under the Partnership that Ministry of Health commence publishing a regular report on system and health indicators by end 2010.

It should be noted that improvements in the HIS may well see indicators apparently 'worsen' as reporting, particularly from more remote areas that may have lower health status, improves. Further, annual measures may vary significantly and longer averages will often provide a more reliable picture of progress. An additional challenge is that the selected indicators are nation-wide averages. These will hide the disparity in levels between provinces and islands. In assessing progress on the Partnership, it will be appropriate also to also consider sub-national performance.

Data weaknesses: Coverage of all the data collection systems is incomplete. The HIS may potentially cover up to 70 per cent of urban populations, but most likely less than 50 per cent of rural. These weaknesses are a key reason why the joint Partnership commitments under the Health outcome include "a strengthened health information system to track MDG progress and support evidence-based decision-making." HIS needs are identified in a HIS Mapping exercise undertaken in February 2009 by the experts from the University of Queensland.

Compounding the health data challenge, Vanuatu does not have a comprehensive vital registration system. Civil status coverage is estimated by the Mortality Reporting Systems study to be about 20-30 per cent of births, but less than 5 per cent of deaths. The MICS found birth registration still remains very low with only one-quarter of under-fives' births registered. There has been no marked progress in expanding the coverage of birth registration. Birth registration has not yet been made compulsory. It should also be noted that there were sampling issues with the MICS. The cluster sampling process requires sampling randomly from a grid, but not every grid areas was accessible for the survey requiring some substitution and re-sampling.

Partnership for Development Health Indicators: Definitions and Notes

#	Indicator	Definition	Notes
Maternal and Child Health			
1.	Under-five mortality rate	The under-five mortality rate (U5MR) is the probability (expressed as a rate per 1,000 live births) of a child born in a specified year dying before reaching the age of five if subject to current age-specific mortality rates.	Improvements in child and maternal health are the key objectives of the Partnership in health. Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate is Target 5 under Millennium Development Goal 4 'reduce child mortality.' While Vanuatu is considered 'on track' to reach this goal, more rapid gains are possible. Primary data sources for child mortality estimates are deaths reported through the Health Information System and vital registration. Both systems are weak as discussed above. UNICEF compiles U5MR country estimates using an agreed estimation methodology. The methodology is intended to smooths trends along time. This will help demonstrate long-term progress under the Partnership. However, country estimates will not necessarily correspond with the U5MR estimates used at the country level. However, the internationally-agreed estimation procedure minimizes errors and maximizes the consistency of trends along time. Consistent treatment also allows effective cross-country comparison of progress. The Partnership will use the most recent U5MR result published by UNICEF at www.childinfo.org. The 2015 target of 20.7 per 1000 has been established as the level corresponding to a two-thirds reduction from the 1990 baseline in U5MR. The 2007 baseline of 34.1 per 1000 is the internationally reported modelled estimate as published by UNICEF at www.childinfo.org. It should be noted that the Mortality Reporting Systems study developed an initial rough estimate of U5MR in Luganville and Vila at approximately 35 per 1000, but expects this to be an underestimate due to incomplete reporting. The confidence interval for this estimate is around +/-10 per cent. U5MR would also be expected to be higher in rural areas. Therefore the baseline of 34.1 in 2007 may prove to be somewhat low, as data collection is strengthened during the Partnership implementation. The 2007 MICS estimated U5MR at around 30 per 1000, noting that these estimates have been calculated by averaging mortality estimates obtained from women age 25-29 and 30-34, and refer to mid 2001.
2.	Infant mortality rate	The infant mortality rate (IMR) is the probability (expressed as a rate per 1,000 live births) of a child born in a specified year to die before reaching the age of one if subject to current age-specific mortality rates.	IMR is MDG Indicator 14 under Goal 4. Although the target relates specifically to under-five mortality, infant mortality is relevant to the monitoring of the target since it represents an important component of under-five mortality. UNICEF compiles IMR country estimates using an agreed estimation methodology. The Partnership will use the most recent IMR result published by UNICEF at www.childinfo.org. The MOH intends to produce an Infant Mortality *Ratio* (as per draft Policy) estimate every two years directly from HIS data. The results may differ as the Partnership will use the internationally-published figures. A 2015 target of *Improvement* has been established, recognising the increased level of weaknesses with IMR data. Specific targets may be established later in the Partnership, once substantial improvements in the HIS have been achieved. Infant mortality is very difficult to measure directly without substantial improvements to the routine reporting system. With low birth registration (around 30 per cent), basing the indicator on this denominator is problematic. Because hospital data are currently substantially more reliable than data from rural facilities, a proxy indicator of infant deaths per births in the hospital may need to be introduced. Given the small absolute number of births, this could look at improvements in rolling averages. The 2007 MICS estimated IMR at 25 per 1000 for 2001. The 2000 estimate published by UNICEF is 38.3. SPC reports 25. An initial IMR estimate of 27 per 1000 was produced by the Mortality research team. The Partnership baseline will be the 28.1 per 1000 internationally reported modelled estimate for 2007 as published by UNICEF at www.childinfo.org.

#	Indicator	Definition	Notes
3.	Maternal mortality ratio	The maternal mortality ratio is the number of women who die from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, per 100,000 live births.	A key objective of any health system is enabling safe reproduction. Maternal mortality reflects a wide range of factors, including general health status, education and services during pregnancy and childbirth. Target 5.A under Goal 5 'improve maternal health' is to reduce by three quarters, between 1990 and 2015, the maternal mortality ratio. The maternal mortality ratio is calculated by dividing recorded/estimated maternal deaths by total recorded/estimated live births in the same period and multiplying by 100,000. The indicator can be calculated directly from data collected through vital statistics registrations, household surveys or hospital studies. However, these all have data quality problems. Available data on levels of maternal mortality are generally significantly underestimated because of problems of misclassification and under-reporting of maternal deaths. Calculating the indicator is particularly difficult in Vanuatu because: vital registration is weak; health system reporting is weak, particularly from non-hospital facilities; and the total number of maternal deaths is very small because of the population size. UNICEF reports a maternal mortality ratio over the period 2000–2007 of 68 per 100 000 live births. It is not clear whether this is an average or the most recently available figure during that period. This is a 'reported' figure shows country reported figures not adjusted for underreporting and misclassification. UNICEF does not report an adjusted figure. The Asian Development Bank (ADB) cited the ratio as 130 per 100 000 in 2000. This may be an adjusted estimate. SPC reports Maternal Mortality Ratio (1993) at 68.0 per 100,000 births. The indicator could be developed to define and separately indicate whether it is the ratio of direct obstetric deaths or direct plus indirect (i.e. including deaths resulting from previously existing disease or disease that developed during pregnancy and that was not directly due to obstetric causes but was aggravated by the physiologic effects of pregnancy).
4.	Number of maternal deaths	The number of women who die from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, shown as a rolling average of last 3 to 5 years available data.	In the analysis of this indicator, averages will be more useful than individual years given that maternal mortality is affected by the number of births. It may also be necessary to separate hospital and community reporting due to differences in reliability of the data. Number and cause of maternal deaths by province has been selected by MOH as one of its *Health Indicators*. This aims to highlight provinces that need special attention and efforts to decrease the number of avoidable maternal deaths.

#	Indicator	Definition	Notes
5.	Proportion of deliveries assisted by a skilled birth attendant	Percentage of births attended by skilled health personnel (doctors, nurses or midwives).	The single most critical intervention for safe motherhood is to ensure that a competent health worker with midwifery skills is present at every birth and that transport is available to a referral facility for obstetric care in case of emergency. Skilled birth attendance is selected, given the difficulties in tracking maternal mortality ratio and maternal deaths. A skilled birth attendant is defined as a trained doctor, nurse or midwife (Vanuatu does not have auxiliary midwives). The MICS found that nearly three-quarters (74.0%) of women aged 15-49 years who gave birth within the two years preceding the survey had their delivery attended by skilled personnel. This percentage is highest in Port Vila (94.7%) and lowest in Torba (32.0%). This has been static for some time, reported as 79% (1990-95)by Ministry of Health, cited in Vanuatu's 2005 Millennium Development Goals Report. UNICEF report skilled attendant at birth, 2000–2007 of 88 per cent. It was also reported at 88 per cent by SPC in 1999. The MICS found that about 80 percent women aged 15-49 years had their child's birth in health facilities and 74 per cent child births were attended by skilled personnel. Delivery attended by skilled personnel is positively associated with education of pregnant and household wealth status. Data from the MICS will be used to establish the baseline. This will be an important complement to the model-based estimate of maternal mortality and the maternal deaths indicators. The substantial time lag in generating estimates of maternal mortality ratio render the data problematic for monitoring progress and observing the impact of health system improvements. In addition, due to the very large confidence limits around the estimates, they are not suitable for assessing trends over time or for making comparisons between countries.
Health system access and coverage			
6.	Routine measles vaccination coverage	Proportion of one year old children immunized with one dose of measles vaccine, achieved through routine health system operations	This is selected as an indicator that shows progress not only on immunisation – an important health service – but also on the strength of the health *system* to be able to deliver this service. The proportion of one-year-old children immunized against measles is also MDG Indicator 15 under Goal 4. The MICS estimated measles vaccination coverage of 1 year olds at 37.1 per cent. Updated small area population estimates through the census should help improve immunisation coverage estimates. Care will need to be taken to avoid confusing this indicator with overall coverage, whether achieved by routine or non-routine vaccination. A 'catch up' campaign had not been conducted in the last year when the MICS survey data were collected.
7.	Routine triple antigen vaccination coverage	Proportion of one year old children immunized with 3 doses of DPT vaccine by routine health system operations	(as above). The MICS estimated triple antigen vaccination coverage of 1 year olds at 58 per cent.
8.	Proportion of health facilities that experienced stock outs of essential drugs	TBD	Baselines and targets for this measure will be established by end 2010, once further diagnostic work on the health supply chain has been undertaken, in line with the Implementation Strategy.

#	Indicator	Definition	Notes
9.	Proportion of rural health facilities with buildings and infrastructure rated 'adequate' or better	TBD	Baselines and targets for this measure will be established by end 2010, once plans and monitoring arrangements have been established, in line with the Implementation Strategy.
10.	Nursing workforce density (per 10,000 population)		MOH has selected the ratio of health professionals to population as one of its Health Indicators, recognising that Human Resources are a critical component of health system functioning. MOH will set targets for this indicator. Nurse workforce density will take time to improve, given the lead-time (3 years) required for pre-service nurse training. The baseline figure is calculated from payroll data provided by MOH for April 2009. There are currently 19.14 nurses per 10,000 population, and 1.54 doctors per 10,000 population. This ratio is better than Papua New Guinea and the Solomon Islands, but lower than Fiji and Tonga. Vanuatu has not yet achieved the level of 25 health care professionals (counting only physicians, nurses and midwives) per 10,000 population that has been established by WHO as the level at which countries are likely to achieve adequate coverage rates of selected primary health care interventions such as immunization and skilled attendance at birth. It should be noted that national ratios do not reflect actual distribution of the workforce across the country, nor within different health services. Only 30 per cent of the workforce is working in community health. Over 70 per cent of the community health workforce are nurses or midwives. The 2015 Target may be revised once the Government's Health Sector Policy is finalised. The target of 25 per 10,000 may not be suited to the dispersed island setting of Vanuatu. It may also be desirable to develop this into a measure of Provincial workforce density, given the focus on service delivery to the periphery. However, this is more difficult to calculate at present, given the state of the HRMIS.
11.	Proportion of health facilities regularly reporting through HIS		Health facilities are required to report, at present, monthly through provincial offices to the central office. Compliance is currently low. Tracking increased compliance will give a good indication of progress in improving the HIS.
Malaria, HIV & STIs, NCDs			
12.	Annual parasite incidence	The number of microscopically confirmed cases of malaria registered in a year per 1000 individuals under surveillance.	Annual parasite incidence (API) is a much more precise measure of malaria incidence than simply recording clinically suspected malaria among patients presenting with fever. API is produced by the MOH Vector Borne Disease Control Program using microscopy results and is published in the annual Epidemiological Report. It should be noted that improved data coverage and the roll-out of new technologies such as rapid diagnostic tests may actually cause a slowing or reversal in apparent API figures, should diagnostic and reporting system coverage rise faster than actual parasite incidence falls as any stage. Vanuatu aims to, by 2014, reduce parasite incidence by 70 per cent to 7 per 1000 from the 2007 baseline of 23.3.
13.	Provinces from which malaria is eliminated	Elimination defined as no recorded transmission for three years.	Vanuatu has identified Tafea as the first province from which the falciparum and vivax malaria is to be eliminated.

#	Indicator	Definition	Notes
14.	STI prevalence: Chlamydia prevalence among pregnant women (%)		Pregnant women making their first antenatal clinic visit provide a proxy for the general population. Young women in particular reflect incident (new) infections, being more likely to have recently become sexually active. STI prevalence is a good indicator of HIV risk behaviours and the presence of ulcerative STIs can increase HIV transmission. A survey among pregnant women in 1999–2000 found a 21.5 per cent prevalence of chlamydia and 27.5 per cent of trichomonas; a larger follow-up survey in 2005 found a chlamydia prevalence of 13.5 per cent. The 2008 second-generation surveillance survey (SGS) of HIV and other STI risk behaviour conducted in Vanuatu in 2008 found a chlamydia prevalence of 25 per cent.
15.	Share of hospital admissions related to non-communicable diseases	TBD	Diabetic peripheral vascular disease is now the most common reason for admission to surgical wards, representing about half of all patients admitted at the Northern Districts Hospital (NDH) and an estimated one-quarter at VCH. Due to the very significant NCD disease burden in the Pacific it is recommended that PICs develop NCD targets and indicators under Target 8 of MDG 6, even though NCDs are not specifically monitored under MDGs globally. A potential source for operationalising this indicator, to be confirmed, is Diabetes Related Hospital Admissions recorded in medical ward admission books.
Financial Management			
16.	Share of GoV health sector expenditures directed to Provincial and Community Health	Proportion of total expenditure for codes 60 and 61 that is against Community Health Program (MHCB), showing actual expenditure both Ministry and Health Cabinet. Includes personnel expenditures.	A combination of improved control over budget (particularly personnel) along with efficiency improvements in the hospital sector would enable increased direction of funds to primary care services without diminishing currently available hospital services. This indicator uses actual expenditure rather than budget: though budget figures are more timely, they are less accurate in terms of measuring real impact.
17.	Share of actual GoV health expenditures that reach provinces and rural facilities	TBD	Indicator definition and baseline will be established once a costing exercise to assess the cost of basic service delivery and flow of funds to service delivery has been undertaken.
18.	Share of GoV health sector expenditures spent on non-personnel costs (not including termination payments)	Proportion of total expenditure for codes 60 and 61 (net of termination payments) that is on goods and services (not including termination payments)	As for indicator #16, this indicator uses actual expenditure rather than budget: though budget figures are more timely, they are less accurate in terms of measuring real impact.
Aid Effectiveness			

#	Indicator	Definition	Notes
19.	Share of Australian aid to health through GoV systems	Proportion of total bilateral Australian aid to Vanuatu health sector disbursed through the Development Fund account, and/or on Vanuatu's budget	Bilateral Australian support is currently delivered through a range of separate aid activities, some of which are not included on Vanuatu's budget nor use the Development Fund account. The VHSP will, over time, encompass all bilateral Australian assistance. As it does so, initiatives will be brought onto Vanuatu's budget, and, where appropriate, disbursement managed through the Development Fund account.