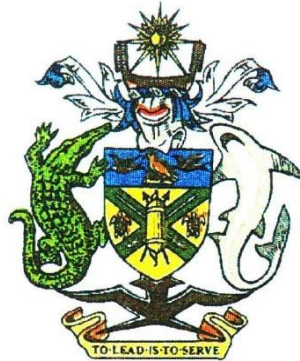


“The People of the Solomon Islands will be Healthy, Happy, and Productive!”



# **National Health Strategic Plan**

## **The Ministry of Health & Medical Services**

**SOLOMON ISLANDS GOVERNMENT**  
**2011-2015**

March 2011

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## **Minister's Foreword**

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It is my pleasure as the Minister responsible for health matters to launch the 2011 to 2015 National Health Strategic Plan (NHSP) for the Ministry of Health and Medical Services (MHMS). This National Health Strategic Plan identifies how the MHMS will deliver on a range of substantive policies (those related to the “business” of health), including the Government’s NCRA policy priorities related to health. The National Health Strategic Plan also defines the MHMS’ overall goal, vision, and mission for this medium term period. It also outlines the organizational policy priorities required to improve the Ministry’s internal functions and operations so that it is better able to achieve the substantive policies for the people of the Solomon Islands. This is all central to fulfilling the lead part of the vision statement on the cover page of this Plan, “The People of the Solomon Islands will be Healthy, Happy, and Productive!”

The MHMS is the major provider of health services in the Solomon Islands. While there are some faith-based organizations (FBO) and NGO’s that provide a proportion of the nation’s health services, in total they are less than 15% of outpatient and inpatient services. Significant proportions of the funding for the services of these FBO’s and NGO’s is provided by the Government through the MHMS, and the MHMS accounts for these services in their planning and overall management of the health sector. As a result, there is very little overlap of FBO and NGO services with MHMS services which is rare. In many countries these services do overlap and duplicate. Also while a few private health and medical services are available in the country (mostly in Honiara), they provide an insignificant proportion of the nation’s total services – probably 2-3 percent. This is good as countries where private services are the dominant form of service delivery (the United States for example) result in very high costs and poor health outcomes for the money spent. The United States has the least cost-effective health sector of any industrialized nation, while the UK, which remains 85% in the public sector, is the most cost-effective.

. This NHSP is a record of the policy and strategy decisions the MHMS made which will guide myself and the MHMS Executive team in high level management of the Ministry and overall stewardship of the Solomon Islands health sector. Any modern health sector in any country is very difficult to plan and manage as there are so many aspects to health. Also due to major advances in medical and health sciences and technology many services have become very expensive such that no country can now afford to implement everything that is technically and clinically possible – we must, like all other countries, set clear priorities and the NHSP does that. Due to the wide variety of services needed and the need to adjust services to the needs of the people in every location, the NHSP is linked to many more detailed operational plans of national programs, a plan for each province, and the National Referral Hospital. I wish to sincerely acknowledge the dedication and effort of all staff, under the leadership of the Permanent Secretary, for the formulation of the 2011-2015 National Health Strategic Plan (NHSP).

**Hon. Charles Sigoto MP**

Minister for Health and Medical Services



## **Permanent Secretary's Overview**

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Recently (2006) the Solomon Islands was the poorest country in the Pacific Region by GDP per capita. Nevertheless, it has produced some of the better health outcomes for the money it spends on health. It is at or above the total disease burden level compared to countries of similar socio-economic levels.

The top 20 causes of morbidity and mortality indicate the country is dealing with the “double disease burden” of both communicable and non-communicable diseases. The country is in mid-phase of epidemiological transition; therefore, they have to deal with both the control of infectious diseases and the increasing incidence of non-communicable diseases, with limited resources. Nevertheless, an analysis of basic health status indicators shows an average annual incremental increase of 1.8% the last 4 years.

Recent increasing in funding for the health sector has been dramatic. Since 2005 MHMS budgets have increased in real terms per capita at an average annual rate of over 16%! The actual spending from 2006 to 2009 increased also in real terms per capita by 19% per year. Both as a percentage of GDP and the percentage of SIG total revenues (4-5% for the former and 9-16% for the latter) the allocations to health are high for a country of the Solomon Islands status relative to countries of similar socio-economic levels. The per capita expenditure has also risen significantly since 2005 when it was at Sol\$ 299/capita and increased to \$533 budgeted in 2010 (\$462 actually spent in 2009).

However, much of those increased funds for the MHMS as a whole have returned sub-optimal health outcomes for the following reasons:

- The MHMS is very “top heavy” and resources are very centralized
- Most organizational functions are operated in a very ad hoc manner – the development of systems and good system operation has not been a priority;
- There has been organizational proliferation at the central level for years.
- Human resource planning, development, and management are also very unsystematic and these three core functions seem generally un-integrated.
- Because the MHMS has generally been locked in the ‘medical model’ approach to the delivery of health service since independence, there are many distortions in funding allocations and managerial priorities.

Contrary to the last 5-year period, currently it is expected that the funding for the health sector will not increase in real terms, per capita over the next five years. If it does increase, it will likely be a very, very small increase. Therefore, the next five years will continue to be challenging for the Solomon Islands Government in ensuring the quality of health care services to the people is improved and increasingly accessible, especially for the majority of the populace who live in the rural areas. The Solomon Islands Government through the Ministry of Health and Medical Services (hereinafter MHMS) has developed health policies and strategies in the National Health Strategic Plan 2011-2015. These conform to the central Government’s policy statements for health. Given the above, the Government is

planning to strengthen existing services mostly within existing community services and through existing facilities. As part of this service improvement there will be an emphasis on health staff development, including preparation of the first national human resource plan for health.

The policy statements for health are divided into two categories. The first category is “substantive” – those policies which relate to the programmatic and technical aspects of health and medicine, or those which define the “business” of health. The second category is “organizational” policies which deal with how the MHMS is structured, its operational processes and procedures, its management, and its functional relationships with other government and non-government organizations. This category of policies which would be similar to and deal with common issues found in any large public sector organization – human resources, facilities, financing, information systems, etc. There are a total of 22 policies – 8 substantive and 14 organizational policies. Obviously, while they are all important, they cannot all be of the same importance for the next five years. In order to highlight the MHMS priority focus for this medium term period the top 4 priorities in each category are below. The complete list of policies and their related objectives and activities are presented later in this National Health Strategic Plan.

### **Substantive**

1. The health sector and some health-related sectors, especially education, will reduce the most important **individual and family behavior-related risk factors** through health promotion and some prevention services
2. The health sector and health-related sectors will reduce the most important **causes of the disease burden** which are feasible to reduce with cost-effective interventions and services.
3. The health sector and health-related sectors will reduce the most **important environmental risk factors**
4. The health sector will reduce the most important **medical condition risk factors** through health promotion and prevention (mostly screening) and some case management/treatment services

### **Organizational**

1. MHMS; Ministry of Public Services; and Ministry of Finance will focus efforts to better and more completely integrate **human resource (HR) planning; production and development; HR management.**
2. MHMS; Ministry of Infrastructure; Ministry of Development Planning & Aid Coordination; Ministry of Finance; and Provinces, will focus efforts to better integrate **health facility and staff housing** planning and design; construction contracting; construction supervision and commissioning; and facility & housing maintenance.
3. The SIG, especially the MOF, and MHMS will focus efforts to better and more completely integrate and improve the performance of the **financial planning and budgeting; expenditure procedures and accounting; and auditing** for both development and the recurrent budgets as well as the international contributions to the health sector.
4. **Decentralize** decision making to Provinces & cooperate with Provincial Governments

Finally, I would like to acknowledge and thank all those who have contributed to the decisions and working through the process that created this plan. First, this was the first time that we involved the Provincial Premiers and Secretaries from all provinces two times in May and in September, 2010. In addition, health related FBOs and NGOs were involved twice. The representatives of our Development Partner organizations were also involved in every stage of this process. The MHMS Program Directors and the Provincial Health Directors made extra efforts to plan better in this process. Last, I would like to recognize the Policy and Planning Division for supporting this planning process and all decision makers' efforts to agree the policies and strategies and the priorities among them.

**Dr. Lester Ross**

Permanent Secretary for Health and Medical Services

## List of Acronyms and Abbreviations

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AHC	Area Health Centre
CBO	Community-based Organization
CMR	Child Mortality Rate; or U5MR - Under 5 (years old) mortality rate
CPR	Contraceptive Prevalence Rate
DHS	Demographic and Health Survey
DP	Development Partners
EmOC	Emergency Obstetric Care
EPI	Expanded Programme of Immunization
FBO	Faith-based Organization
GDP	Gross Domestic Product
HIS	Health Information System
HR	Human Resources
HRD	Human Resource Development
ICB	International Competitive Bidding
ICT	Information and Communication Technology
IMR	Infant Mortality Rate
LCB	Local Competitive Bidding
MDG	Millennium Development Goals
MHMS	Ministry of Health and Medical Services
MMR	Maternal Mortality Rate
MOU	Memorandum of Understanding
MTEF	Medium Term Expenditure Framework
MYOB	Mind Your Own Business (commercial accounting software adopted by SIG)
NAP	Nurse Aid Post
NCD	Non-Communicable Disease
NGO	Non-Government Organization
NHSP	National Health Strategic Plan
NRH	National Referral Hospital
OPD	Outpatients Department
PHC	Primary Health Care
PHD	Provincial Health Director
RHC	Rural Health Clinic
RWSS	Rural Water Supply and Sanitation
SIG	Solomon Islands' Government
STI	Sexually Transmitted Infections
SWAp	Sector Wide Approach
WATSAN	Water and Sanitation

## Overall Health Sector Goal, Vision, Mission

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### Goal

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The Solomon Islands' population's overall health status will improve by between one to two (1-2%) percent by 2015. This will be assessed by analyzing the average changes in key population health indicators.

While this may not seem like a major improvement, when a country achieves a relatively higher level of health status, it becomes increasingly difficult and expensive to improve overall health status. As below, it is not expected that the health sector will be allocated any significant incremental funding in real terms, per capita. In addition, the entire government has had a hiring freeze for several years and even if it is lifted, the incremental increases in health staff may not be major increases. As health staff are the major "engine" of productivity, the reality of this constraint will also limit what is possible in the next 5 years.

### Vision of Future Solomon Islands Health

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The People of the Solomon Islands will be healthy, happy, and productive!

- As health status is a key factor in improving all socio-economic development, it must be made a priority of all sectors involved in development efforts.
- Therefore, the public's health status must continually improve.

### Mission of the Health Sector

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The health sector's mission is to play its part in improving the public's health status. This will be done through:

- Proactive stewardship of the sector with a focus on Primary Health Care (PHC) and Healthy Islands efforts via active community empowerment and development;
- Building partnerships with communities, other sectors (like agriculture, education, labor, transport, infrastructure, etc.) and Provincial Governments will be crucial in achieving these initiatives; and
- The sector will also plan and manage health improvements with a focus on reducing the determinants of disease and illness including improved disease management.

## Definition of Needs for Strategic Change

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### Substantive Profile & Needs

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Recently (2006) the Solomon Islands was the poorest country in the Pacific Region by GDP per capita. Nevertheless, it has produced some of the better health outcomes for the money it spends on health. It is at or above the total disease burden level compared to countries of similar socio-economic levels.

The top 20 causes of morbidity and mortality indicate the country is dealing with the "double disease burden" of both communicable and non-communicable diseases (see Annex I for details). The country is in mid-phase of epidemiological transition; therefore, they have to deal with both the control of infectious diseases and the increasing incidence of non-communicable diseases, with limited resources. Nevertheless, analysis of the basic health status indicators that exist suggest an average annual incremental increase of 1.8% the last 4 years. Table 1 below offers a profile of the current status and the 2015 indicator targets.



**Table 1**

<b>Indicator</b>	<b>Data Source</b>	<b>Benchmark</b>	<b>Status 2010</b>	<b>Target 2015</b>
IMR	DHS (NSO) census	26.1 /1000(2003-2007)	30	25
<b>Neonatal mortality rate</b>	<b>DHS (NSO)</b>	<b>16.8</b>		
U5MR	DHS (NSO)	37.2 /1000	36	29
<b>MMR (MDG 5)</b>	<b>DHS (NSO)</b>	<b>184/100,000 live births</b>	<b>140</b>	<b>120</b>
HIV prevalence among (15-24 year old pregnant women)	? ANC Sentinel Surveillance	? % (no data)		< by 2011
<b>Life expectancy at birth</b>	<b>Census/NSO</b>	<b>yrs (NSO, 2008)</b>		<b>by 2011</b>
Incidence of Malaria	HIS /survey	250/1000	77	50
<b>OPD Service Utilization</b>	<b>HIS</b>	<b>To be agreed</b>	<b>1.9/capita</b>	<b>2.2/capita</b>
Proportion of 1 year-old children immunized against measles	EPI	87.3 ( DHS 2007 ?)	90.40%	93
<b>% surveyed population satisfied with services</b>	<b>??</b>	<b>To be established</b>		<b>&gt; Baseline</b>
CPR (modern methods)	DHS	34.6 2007)	35	40
<b>Proportion of births attended by skilled health personnel</b>	<b>DHS</b>	<b>84.5</b>	<b>85</b>	<b>90</b>
% of pregnant women and children who slept under an insecticide treated net (ITN) the previous night	DHS 2007 (NSO)	36.5 % preg mothers with 40.4% children	38	60
<b>TB Detection Rate</b>		<b>46%</b>	<b>70%</b>	
TB Cure Rate	HIS	82% (HIS/NTCP, 2009)	85%	
<b>% of HCs offering basic EmOC services</b>	<b>HIS</b>	<b>To be agreed</b>		
Doctor/Population Ratio and Nurse/population Ratio	HRH M&E database	1 doctor / population 1 Nurse /population	1 Doctor: 7,510; 1 Nurse: 883; 1 Nurse aid: 1279	
% of under five children with diarrhoea in the preceding two weeks who received oral rehydration therapy	DHS (NSO)	37.7% (DHS 2007)		
Access to clean water and sanitation increased	Baseline to be agreed	2007 70% DHS		
<b>STI incidence rates</b>		<b>13.1/1000</b>		

In the last two years the Ministry's health information system (HIS) has not produced aggregate numbers or any analysis as a result of the past database being re-programmed. This created an excuse for no routine health information outputs in summary form to be produced either for provinces, programs, or the Ministry as a whole. Nevertheless health information in the provinces and at NRH was collected manually, it just has not been entered into a database, so no analysis or summarization has been completed except manually at the provincial level and by some of the national programs – some of whom have their own information systems or separate surveys. Therefore, many of the indicators, which should be tracked and current status known, are not known for the country as a whole.

Note that in Table 1 above and those below many of the indicators are estimates, or there is serious conflict among sources which present specific values for various indicators. An analysis of demographic

and health data information in July 2010 revealed that international organisations who track data for the Solomon Islands had very wide variance in their respective data presented. This began with data as basic as total country population. The variance of these “officially published” figures ranged from almost 600,000 to the low 500,000 figure. This is a variance of 15 to 20%, not a more reasonable variance of 3-5% - or at least less than 10%. This is indicative of how international agencies have not been assisting the country in basic demographic and health current status and projections. More importantly this reality shows development partners are not acting together to agree on a consensus view which may or may not differ from the Government’s official position, but at least they do add to confusion over health-related data and information by citing a wide variety of numbers leaving health planners and managers in a quandary as to which and what to believe. At the July analysis timing the preliminary results from the 2009 census was not available. By September the census results showed a population of 515,870 – see Table 2 below.

Table 2

Year	Choiseul	Western	Isabel	Central	Rennel	Guadalcanal	Malaita	Makira	Temotu	Honiara	Total	Growth Rate
2009*	26,379	76,649	26,158	26,051	3,041	93,613	137,596	40,419	21,362	64,602	<b>515,870</b>	
2010	26,959	77,952	26,655	26,546	3,099	96,421	139,110	41,308	21,597	66,023	525,671	1.9%
2011	27,525	79,199	27,135	27,024	3,155	98,832	140,501	42,176	21,813	67,410	534,769	1.7%
2012	28,076	80,387	27,596	27,483	3,208	101,006	141,906	43,019	22,031	68,758	543,471	1.6%
2013	28,609	81,593	28,065	27,950	3,263	103,127	143,183	43,837	22,229	70,064	551,921	1.6%
2014	29,124	82,735	28,514	28,398	3,315	105,190	144,471	44,626	22,429	71,325	560,128	1.5%
2015	29,620	83,811	28,942	28,824	3,365	107,294	145,627	45,384	22,609	72,538	568,013	1.4%
*2009 figures are actuals from Census						Net Increase =					52,143	
						Total Period Increase =					<b>10.1%</b>	

The overall average population growth rate for the 10-year period since 1999 was 2.3%, considerably down from the previous 10-year period of 2.8%. Some of the international agencies clearly had made their projections by simplistically projecting using the 2.8% growth per year up to 2009/10. However, when countries, like the Solomon Islands, are still going through the demographic transition growth rates are very rarely stable through a 10-year period – they usually are declining. Declines in growth rates of even a tenth of percentage point per year make a large difference after 10 years. At the writing of this plan the more detailed analysis of the 2009 Census is still not available. However, MHMS has run various scenarios to define the likely changes in growth rates to arrive at the 2009 population. This analysis suggested that the growth rate by 2009 had to be about 2.0%. Therefore, lacking any other updated projections, the MHMS projects the population changes to be those in Table 2. The projections up to 2014 on the SIG CSO website are clearly based on figures entered before the 2009 census.

In addition, as one would expect the growth rates among Provinces was not even – only few grew at the national average growth rate. Most grew at rates above or below the national average – some dramatically above (like Guadalcanal) and others well below the average growth (like Western and Malaita). In 1999 Western was the second largest populated province, but by 2009 it was well behind Guadalcanal. Part of this growth was no doubt due to intra-country migration to the area around Honiara. Table 2 has been calculated based on these trends in differential growth among provinces continuing until 2015 and to 2025.

Table 3

Solomon Islands					
Demographic Indicators	1995	2005	2010	2015	2025
<b>Population</b>					
Midyear population (in thousands)	375	496	526	568	647
Growth rate (percent)	3	2.5	2	1.5	1.1
<b>Fertility</b>					
Total fertility rate (births per woman)	5.2	4.1	3.7	3.3	2.7
Crude birth rate (per 1,000 population)	37	32	24	19	15
Births per Year	13,875	15,872	12,624	10,792	9,705
<b>Mortality</b>					
Life expectancy at birth (years)	70	73	74	75	77
Infant mortality rate (per 1,000 births)	66	35	30	25	18
Total Infant Deaths	916	556	379	270	175
% of total Deaths	49%	28%	18%	12%	7%
Under 5 mortality rate (per 1,000 births)	73	37	36	29	21
Total Under 5 Deaths (including infant deaths)	1,013	587	454	313	204
% of total Deaths	54%	30%	22%	14%	8%
Crude death rate (per 1,000 population)	5	4	4	4	4
Deaths per Year	1,875	1,984	2,104	2,272	2,588

In Table 3 above, it is shown that the under 5 child mortality was over half of all deaths only 15 years ago. In another 15 years it is predicted to drop to less than 10% of all deaths. This is a dramatic change in 30 years.

In order to more completely understand the improvements in performance needed during this plan period, the MHMS has calculated the coverage and service implications of various changes in rates called for - by the MDGs in particular. Table 4 below “translates” MDG 4, the under 5 mortality desired rate changes into numbers of deaths per year that need to be averted. It also calculates the “improvement” rate which is an indicative test of feasibility – posing the question, “can the MHMS improve the variety of interventions which results in under 5’s life-saving services by an average of 6 to 8 percent a year?” For the nature of what is being changed and the mix of services required, this is a good, but feasible “run rate.” If it called for an incremental improvement of say 15% every year better than the previous year, one would judge this as unlikely – not feasible.

Table 4

Year	CMR					
	2010	2011	2012	2013	2014	2015
Total Population	525,671	534,769	543,471	551,921	560,128	568,013
Crude Birth Rate (per 1,000 pop.)	24	23	22	21	20	19
Births per Year	12,616	12,300	11,956	11,590	11,203	10,792
< 5's Death Rate/ Year	36	34	32	31	30	29
< 5's Deaths Per Year	454	418	383	359	336	313
How many more per year?		36	36	23	23	23
How many more 2010-2015?						141
% Improvement per Year		7.9%	8.5%	6.1%	6.5%	6.9%
% Improvement: 2010-2015						31.1%
% of deaths of all births	3.6%	3.4%	3.2%	3.1%	3.0%	2.9%

The changes in maternal mortality ratio (MMR) (MDG 5) and the needs for maternal deaths averted are presented in Table 5 below. Again the “run rate” seems feasible, and the incremental mother saved every year is only one.

**Table 5**

<b>Maternal Mortality Rates</b>			<b>MMR</b>					
	<b>Year</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	
Total Population		525,671	534,769	543,471	551,921	560,128	568,013	
<b>Crude Birth Rate (per 1,000 pop.)</b>		<b>24</b>	<b>23</b>	<b>22</b>	<b>21</b>	<b>20</b>	<b>19</b>	
Births per Year		12,616	12,300	11,956	11,590	11,203	10,792	
<b>Maternal Death Rate/ Year</b>		<b>140</b>	<b>137</b>	<b>135</b>	<b>130</b>	<b>125</b>	<b>120</b>	
<b>Maternal Deaths Per Year</b>		<b>18</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>13</b>	
<b>How many more per year?</b>			<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	
How many more 2010-2015?							5	
<b>% Improvement per Year</b>			<b>4.6%</b>	<b>4.2%</b>	<b>6.7%</b>	<b>7.1%</b>	<b>7.5%</b>	
% Improvement: 2010-2015							<b>26.7%</b>	
<b>% of deaths of all births</b>		<b>0.1%</b>	<b>0.1%</b>	<b>0.1%</b>	<b>0.1%</b>	<b>0.1%</b>	<b>0.1%</b>	

While the country has already met the MDG target for Goal 5 (MMR in 1990 was 550 & the 2010 rate is a 74.5% reduction), it may seem that this change is not ambitious enough. Reducing many of the maternal deaths is very time sensitive – of the 5 major causes of maternal deaths, two of them normally require that a mother be transported to emergency obstetric care within a few hours (normally less than 3) in order to save the mother’s life. Due to the widely disbursed population; the distances many mothers are from any health service; and the country’s limited transport infrastructure (most by sea) and the high costs of transport; it is predicted that bringing down the MMR faster will not be feasible due to factors beyond control of the health sector. Only a robust 24/7, helicopter-based medivac service would be able to provide such a service to reduce MMR to the desired level.

The MHMS has begun a much stronger focus on nutrition. The 2007 Demographic & Health Survey (DHS) found that 32.8% of all under 5 children were stunted, and of those 8% were severely stunted. If the one third of children that were stunted were living in urban slums, (as in some countries) then the Government may need to consider a supplemental feeding program. However, in the Solomon Islands about 80% of the population lives in rural areas; and they can and do grow most of their own food year round. Therefore, this is indicative of a major nutrition education need for parents, not supplemental feeding. This should be coupled with an iron supplementation program for mothers (as the DHS also showed that over half of the mothers were anemic). If the objective for MDG 1 is to reduce the proportion of children who are undernourished or malnourished by 20% every year, then the coverage targets would result in numbers presented in Table 6 below.

Table 6

Nutrition - Stunting in <5's		Target = 20% reduction per year							
Year	2007	2009	2010	2011	2012	2013	2014	2015	
% Stunted	33%	31%	31%	25%	20%	16%	13%	10%	
% Change, if 20%/Year Reduction			6.2%	5.0%	4.0%	3.2%	2.5%	2.0%	
Total Under 5's		76,505	77,959	79,284	80,552	81,761	82,905	84,066	
Growth Rate			1.9%	1.7%	1.6%	1.5%	1.4%	1.4%	
Total Stunted		23,717	24,167	19,662	15,982	12,977	10,527	8,539	
Number needing Nutritional Care				4,916	8,990	12,369	15,174	17,521	

MDG 6 calls for combating HIV/AIDS, malaria, and other diseases. Currently there is no data on the prevalence of HIV/AIDS in the country. There has never been any sentinel survey to estimate prevalence in the total population. During the 2009 World Aids Day 566 people volunteered to be tested and 6 blood samples were reactive to the HIV antibodies, which would suggest a prevalence rate of 1060/100,000. Confirmation of actual infection of the people relate to these 6 samples was not done. However, the people tested could not be considered a representative sample of the population, or even as a valid sentinel survey group. The prevalence is likely much lower – this is suggested by the low number of the total of ever confirmed cases in 2009 were only 13, eight of whom were living and five were already deceased. In addition, the rates of syndromic STI cases presented at hospitals and health facilities are very low (0.1% of all cases) as in Table 7 below.

Table 7

Health Incidences reported by the Central Hospital and Provincial Health Centres Province													Total %
Province	Yaws	Skin Disease	Ear Infection	NNT	Tetnus	Pertusis	Polio	Measles	Penis Discharge	Vaginal Discharge	Genital Ulcers	Other	
<b>Percentage</b>													
Guadalcanal	3.3	5.7	2.5	0	0	0.1	0	0	0.1	0.1	0.1	33.6	46
Western	3.7	4.8	4	0	0	0	0	0	0.1	0.1	0	41.2	54
Malaita	3.7	5.8	1.8	0	0	0	0	0	0	0.1	0	42.3	54
Temotu	3	8.6	5.4	0	0	0	0	0	0.2	0.4	0.2	36.1	54
Central	1	5.5	2.5	0	0	0	0	0	0.1	0.1	0.1	37.9	47
Choiseul	0.9	8.6	5	0	0	0	0	0	0	0.1	0	37	52
Isabel	0.9	4.7	3.4	0	0	0	0	0	0	0.1	0	36.9	46
Makira	3.6	8.8	2.5	0	0	0	0	0	0.2	0.3	0.2	34.3	50
Honiara*	1.4	3.8	7.1	0	0	0	0	0	0.3	0.3	0.1	40.4	53
Rennell	3.9	9.3	1.6	0	0	0	0	0	0.3	0.3	0.2	47.2	63
Solomon Is.													
Average %	2.9	5.8	3.4	0	0	0	0	0	0.1	0.1	0.1	39.2	52

Source: Medical Statistics Department

Table 8 Displays a profile of the TB situation and targets (also MDG 6). Note that there are a number of anomalies in the table which would seem to be epidemiologically impossible changes in one or a few years. Also note that while the prevalence rate may go down from one year to the next, the actual number of cases may increase due to population growth (See 2007 to 2010 changes). Whatever the realities with the data, it seems that there has been a dramatic drop in TB over the last 20 years and that trend will continue for the next 5 years as well.

Table 8

TB Rates & Numbers of Cases									
	Base Year	DHS							
Year	1990	2007	2009	2010	2011	2012	2013	2014	2015
Population	338,700	496,426	515,870	525,671	534,769	543,471	551,921	560,128	568,013
Population/100,000	3.39	4.96	5.16	5.26	5.35	5.43	5.52	5.60	5.68
Prevalence Rate/100,000 [estimated, known, or target]	661	180	179	178	175	170	160	150	140
Total Annual Estimated Cases	2239	894	923	936	936	924	883	840	795
Total Cases Detected/Treated			138	341					
% of Cases Treated vs Estimated Prevalence			15%	36%					
Rate of Prevalence Change					4.7%	-1.3%	-4.4%	-4.9%	-5.4%
Deaths		74	6						
Death rate/100,000		15	1.2						
% of Population Infected	0.7%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%

Table 9

Malaria								
Year	2009	2010	2011	2012	2013	2014	2015	
Population	515,870	525,671	534,769	543,471	551,921	560,128	568,013	
Population/1,000	5.16	5.26	5.35	5.43	5.52	5.60	5.68	
Incidence Rate/1,000 [estimated, known, or target]	77	76	75	74	73	72	71	
Estimated Annual Infections by Incidence rate	39,722	39,951	40,108	40,217	40,290	40,329	40,329	
Total Annual Cases Reported as Treated	40,136							
Total Cases Detected by lab tests	47,253							
Rate of Incidence Change			-1.3%	-1.3%	-1.4%	-1.4%	-1.4%	
Deaths	13							
Death rate/100,000	2.5							
% of Population Infected	7.7%	7.6%	7.5%	7.4%	7.3%	7.2%	7.1%	

Table 9 defines the 2009 situation with malaria and estimates for lowering the national average incidence rates by 2015. The 2010 data is not yet available. Note that the cases detected/confirmed by lab microscopy are over 7,000 more than cases reported as treated – this seems an anomaly. While the national average incidence is planned and predicted to reduce over the next 5 years by something over 1% per year and the percent of the total population infected is also predicted to decline. However, note that the number of total people infected will continue to increase slightly due to population growth. While the death rate is reported to be low, it could increase as in 2009 when 72% of all cases were reported to as falciparum and only 28% vivax type malaria. While Table 9 reports the national average incidence of malaria, the variation among Provinces is considerable. In 2009 Guadalcanal reported an incidence of 156/1,000 (an increase from 2008 which was 149) and Central Province reported only 55/1,000 – one province having 3 times the malaria incidence of the other.

Clean and sustainable drinking water supply is one of the most critical factors to achieving and maintaining good health status. Again due to the low population density of the country and major transport/logistical problems, the pure drinking water supply coverage (MDG 7) remains lower than

would be possible if there were just one or two densely populated islands. This is verified in Table 10 below which shows the small average numbers of people covered with each new water system installation (176). In 2011 MHMS was able to get budget for the installation of only 52 new systems. The MHMS also has a capacity problem in RWSS as it is unable to hire additional staff (SIG-wide hiring freeze). Therefore, even with additional budget, the MHMS could not install more systems. Contracting out more system installation is a possibility.

**Table 10**

<b>Environmental Health</b>								
	<b>Year</b>	<b>1999</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Total Population		409,042	525,671	534,769	543,471	551,921	560,128	568,013
<b>Population with WATSAN</b>		<b>250,003</b>	<b>367,969</b>	<b>390,381</b>	<b>407,603</b>	<b>424,979</b>	<b>436,900</b>	<b>454,410</b>
<b>% Public Provided*</b>		<b>61.1%</b>	<b>70%</b>	<b>73%</b>	<b>75%</b>	<b>77%</b>	<b>78%</b>	<b>80%</b>
			Estimated					
<b>Needed Additional Pop. Covered</b>				<b>22,412</b>	<b>17,222</b>	<b>17,376</b>	<b>11,921</b>	<b>17,510</b>
<b>New Systems/Year**</b>				<b>52</b>	<b>60</b>	<b>70</b>	<b>80</b>	<b>90</b>
Average People/System***				176	176	176	176	176
<b>Total Population Covered/year</b>				<b>9,152</b>	<b>10,560</b>	<b>12,320</b>	<b>14,080</b>	<b>15,840</b>
Need & Supply Difference				13,260	6,662	5,056	(2,159)	1,670
* MDG Goal would imply covering half of the 40% not covered in 2000 - or 20% more - a total of 80% of the population								
** Estimated annual expansion needed to come close to MDG target								
*** In 2009, 38 newly installed systems covered 6,714 citizens or an average of 176 people per system installed								

MDG 8 has a number of indicators, and one of them relates to health – “proportion of the population which has access to affordable essential drugs on a sustainable basis.” The 2003 HDR reported that this essential drug “access” varied from 80 to 94% throughout the Solomon Islands. This was at the time when the civil disturbance was just ending. There is no global proposal for the quantum or percentage of change for this indicator and MDG goal, but the modality of the MHMS operation with essential drugs available free of charge at all service delivery points makes it axiomatic that the public’s sustainable and affordable (free) access to these drugs is only a matter of the public’s access to services. It could be argued that the MHMS service delivery network could be expanded further so that access was easier for more of the population. However, countries that have done this at this stage in the demographic and epidemiological transitions have often found that these new peripheral service facilities get by-passed almost as soon as they are constructed. Therefore, this issue of access is a more a function of transport infrastructure and transport cost than the public being disenfranchised by cost or other access factors. Therefore, for the Solomon Islands this MDG can be considered achieved this goal.

Tables 1 through 10 display a general profile of a number of key health status indicative data. As noted above, much of the data and analyses are inconsistent, incomplete or not up-to-date. This is common to many countries similar in socio-economic status to the Solomon Islands. This is indicative of information systems units’ lack of capacity, and that HIS operations and outputs are often not a high managerial priority. This situation is verified in that the MHMS’ HIS has not produced any national aggregate data for more than two years. However, even if the HIS had been fully functional, the overall status of health-related data and information and its use is low to moderate standard. Little real analysis of data has been done on a regular basis – most is just summations and averages, but also little has been done to define, for example, past and planned rates of change; cross-verification of epidemiological validity; etc. so that managers and planners can more easily understand the numbers presented to them, and more easily make decisions based on the information presented. External assistance also does not seem to have made this a priority; for example, the MDG profile on the SIG



Statistical Office’s website (who are responsible for overall national monitoring of MDGs) has not been up-dated since 2006, and many MDG indicators (health-related and others) still have no agreed 2015 targets entered. It is not clear why the DPs, UN Agencies in particular, haven’t supported the Government in robust planning and monitoring of MDGs until now.

## Organizational Profile and Needs

### Operating environment and context

The MHMS must operate within the physical and socio-cultural environment of the country and the overall organisational structure and procedures of the Solomon Islands Government. The latter requires operating within both the political and civil service environment. While the public’s social-cultural values and demands are for more and better health services, in general the SIG systems have not been driven by continually improving performance. Like most every country’s public sector, the SIG remains primarily budget-driven; not performance driven (see Table 11 below). That is, ministries and units within them are not given funds based on their past and proposed outputs and outcomes, rather decisions are made primarily on what is specified as inputs and operational processes cost. Table 11 compares the 4 basic types of health systems against a number of characteristics. The Solomon Islands health sector conforms to the first type of system – a publicly financed and publicly “owned” & operated system. This is also the system the country wants to maintain, so any health reforms will be carried out within this existing “Public-Public” overall system type.

Table 11

<b>Major Types of Health Systems &amp; Characteristics</b>				
<b>Characteristics</b>	<b>Public Finance - Public Operated</b>	<b>Public Finance - Private Operated</b>	<b>Private Finance - Public Operated</b>	<b>Private Financed - Private Operated</b>
<b>Exercise of Authority/Management Style</b>				
Highly Authoritarian	X			
Mixed	X	X	X	X
Highly Democratic				Possible
<b>Site of Key Authorities and Decision Responsibility</b>				
Centralized	X	X	X	
Balanced	X		X	
Decentralized	Possible		X	
Centralized public/independent private		X		X
<b>System’s Performance Drive/ Performance Rewards</b>				
Budget Driven	X	X		
Health Status Improvement	X	X	X	
Keeping powerful happy	Possible		?	
Financial gain				X
<b>Administrative Control</b>				
Wholly Government	X		X	
Government/Private blended		X		
Wholly Private				X
<b>Degree of Uniformity related to Service Structures &amp; Operations</b>				
Completely Uniform	X		X	
Mostly Uniform - >80% conformity		X	Possible	
Pluralistic - little standardization				X
<b>Criteria for Staff Appointments and Major Personnel Actions</b>				
Technical/Managerial Merit	X	X	X	X
Political Ideology	Possible		Possible	
Family Nepotism/Personal Relations	Possible		Possible	

The health sector has recently become more “mixed” in terms of Management Style, and the Executive is interested in increased decentralization of decision making, particularly to the provinces. The MHMS does have quite a uniform service delivery structure in terms of facility types and standard staffing patterns, but it is not rigidly planned and enforced in every area of every Province – there is some variation, but not much. How services are managed and operate is nominally done via the



Government's "administrative control" as defined by the civil service rules & regulations. However, a manager or staff member has to seriously violate these rules (often relating to their personal behaviour) before he or she is sanctioned or terminated. A formal performance system that is built around health service provision does not exist. Such a system should provide positive consequences for good job performance and negative consequences for sub-optimal performance.

The criteria applied to decide staff appointments for professional and technical positions are based on technical qualifications. Other non-professional/technical staff appointments may not be based on merit, rather on family, community group, or belief group affiliations. When staff and managers are already in service, many of the decisions regarding their placement and promotions are also not based on merit criteria, rather often on the same above criteria.

Table 12

<b>Organisation &amp; Management Systems, Performance, &amp; Priorities</b>					
Category of Decision(s)	System Development <sup>1</sup>	Existing Performance <sup>2</sup>	Score <sup>3</sup>	Priority <sup>4</sup>	Index Value <sup>5</sup>
<b>Health Sector Stewardship</b>					
Policy/Strategy planning, mgmt. & monitoring	3.3	3.5	11.4	8.8	7.8
Organizational planning, mgmt. & monitoring	2.5	2.8	6.9	6.3	5.8
Community Partnership coordination	1.5	1.5	2.3	6.3	6.1
Political Relationships management	2.0	3.5	7.0	5.0	4.7
Macro Resource planning & monitoring	1.8	3.5	6.1	7.5	7.0
<b>Averages SUB-TOTAL</b>	<b>2.2</b>	<b>3.0</b>	<b>6.7</b>	<b>6.8</b>	<b>6.3</b>
<b>Operational Planning Sub-systems</b>					
Human Resources	1.8	3.5	6.1	10.0	9.4
Facilities	1.5	4.3	6.4	6.3	5.9
Logistics/Supply	4.3	4.3	18.1	7.5	6.1
Procurement	4.3	5.0	21.3	6.3	4.9
Research	1.3	3.3	4.1	6.3	6.0
Medical & Public Health Technology	1.3	3.5	4.4	6.3	6.0
Health Information System	3.5	3.5	12.3	10.0	8.8
National Programs operations & budgeting	4.3	4.3	18.1	7.5	6.1
Provincial level operations & budgeting	4.3	4.3	18.1	8.8	7.2
<b>Averages SUB-TOTAL</b>	<b>2.9</b>	<b>4.0</b>	<b>12.1</b>	<b>7.6</b>	<b>6.7</b>
<b>Operational Management Sub-systems</b>					
Task/activity organization & control	4.0	4.3	17.0	7.5	6.2
<b>HR Development &amp; Training</b>					
Technical training & development	2.5	3.5	8.8	5.0	4.6
Management training & development	3.3	3.5	11.4	6.3	5.5
HR Mgmt. - Performance systems	1.5	1.5	2.3	8.8	8.6
Facilities construction & maintenance	1.3	1.8	2.2	6.3	6.1
Supply & Logistics operations & control	3.5	4.3	14.9	6.3	5.3
Finance transactions & accounting	4.3	4.3	18.1	7.5	6.1
<b>Averages SUB-TOTAL</b>	<b>2.9</b>	<b>3.3</b>	<b>10.6</b>	<b>6.8</b>	<b>6.1</b>
<b>Monitoring/Evaluation Sub-systems</b>					
Medical services	1.5	1.8	2.6	6.5	6.3
Public Health services	2.3	2.3	5.1	8.8	8.3
Organisational functions & support services	1.5	2.5	3.8	6.3	6.0
Financial analysis & auditing	3.5	4.3	14.9	8.8	7.4
Evaluation studies	1.3	1.5	1.9	7.5	7.4
<b>Averages SUB-TOTAL</b>	<b>2</b>	<b>2.5</b>	<b>5.6</b>	<b>7.6</b>	<b>7.1</b>
<b>Legal &amp; Regulatory Sub-systems</b>					
Law & regulation formulation/adoption	1.3	2.3	2.8	7.5	7.3
Law/Reg. dissemination & enforcement	1.3	1.5	1.9	5.0	4.9
Judicial process & penal operations	2.0	2.5	5.0	4.0	3.8
<b>Averages SUB-TOTAL</b>	<b>1.5</b>	<b>2.1</b>	<b>3.2</b>	<b>5.5</b>	<b>5.3</b>
<b>Averages of All</b>	<b>2.06</b>	<b>2.63</b>	<b>7.28</b>	<b>5.84</b>	<b>5.30</b>
<sup>1</sup> 1 = no existing system/ad hoc operation; 2=system begun; 5=system functional; 10=system well established					
<sup>2</sup> 1=very poor or no performance; 2=basic performance; 5=average or moderate performance; 10=high performance					
<sup>3</sup> Score = how well developed the system & how well it is performed by those responsible					
<sup>4</sup> 1=low priority; 5=average priority; 10=high priority					
<sup>5</sup> Index = indicates how important this system/sub-system should be to the Executive for improvement					
Index calculated by total possible score (100) minus actual score (3rd column), times Priority rating (4th column) times .01					

Table 12 above, provides a “scorecard” for organisational systems, current performance, and priorities; much like Table 1 does for substantive indicators of the public’s health and health services. The results entered are an average of a sample of the Executive members and some program Directors. This Table suggests that many of the systems and sub-systems are very underdeveloped. The highest possible “score” (Column 3) is 100 (10 for a “well established system” and 10 for “high performance”), but the highest score for any system line was 21.3 – less than a quarter of the possible.

This profile is common in many countries' public sector health systems as often little attention is paid to organisational systems development. Many "developed" countries' health sectors would also rate very poorly on this type of organisational "scorecard" because they are managed by health professionals who usually have little training in practical aspects of organisation and management practices – much of the management training provided continues to be primarily theoretical. Also past external assistance to health sectors has tended to focus on the medical and public health operations largely from only the technical and financial perspective, or only a few sub-systems – like drug supply.

Several of the MHMS Executives are of the view that MHMS has generally been locked in the 'medical model' approach to the delivery of health service since independence; therefore, there are many distortions in funding allocations and managerial priorities. Within MHMS some critical systems for good health sector performance still don't exist or begun very, very recently, like human resource planning. Note that almost half (13 of 29) of the systems & sub-systems are rated below "2" in the "System Development" column suggesting there is no system and operations are carried out in an ad hoc manner. The overall average for this column is just slightly over 2, further indicating the need for major system development throughout the organisation.

The highest priority of all systems/sub-systems was HR Planning with an Index score of 9.4. Next was HIS at 8.8 and both the top two priorities had unanimous "Priority" ratings of "10" by all participants in the sample. The third highest priority was HR Management at 8.6. This reinforces the MHMS organisational policy priorities which placed HR as the highest overall policy priority. As a group the Monitoring and Evaluation group of sub-systems scored the highest of all 5 groups at 7.1 for an overall Index average. The Operational Planning group ranked second with a 6.7 average Index score.

In addition to the above organisational system development problems and causes, many of the systems and sub-systems need to be decided upon or agreed among many groups, including the public. Therefore, in order to improve performance of these various systems and sub-systems, an examination has to be made of who needs to be involved in the decision making about the systems and their operation. Table 13 displays a suggestion of the different groups that need to be involved in the various system and sub-system development and operation.

Table 13

<b>Management Decision Making - Who Decides What?</b>							
Category of Decision(s)	<b>Roles and Responsibilities [see Key below]</b>						
	<b>SIG Central Agencies</b>	<b>MHMS Executive</b>	<b>Program Managers</b>	<b>PHDs</b>	<b>Provincial Gov't.</b>	<b>FBO/ NGO</b>	<b>Communities</b>
<b><u>Institution Building/Macro Health Reform/"SectorWork"</u></b>							
Policy/Strategy planning, mgmt. & monitoring	5	10	5	1	10	5	1
Organizational planning, mgmt. & monitoring	5	10	1	5	1	1	1
Community Partnership coordination	1	10	5	10	10	5	10
Political Relationships management	5	10	1	5	10	1	5
Macro Resource planning & monitoring	10	10	1	1	5	1	0
<b>SUB-TOTAL</b>	<b>26</b>	<b>50</b>	<b>13</b>	<b>22</b>	<b>36</b>	<b>13</b>	<b>17</b>
<b><u>Operational Planning Systems</u></b>							
Human Resources	5	10	1	5	1	5	0
Facilities	0	10	1	5	5	1	1
Logistics/Supply	0	10	5	5	1	1	0
Procurement	0	10	5	1	1	1	0
Research	0	10	5	1	0	1	0
Medical & Public Health Technology	0	10	10	5	1	1	0
Health Information System	0	10	5	5	0	1	0
National Programs operations & budgeting	5	5	10	5	1	5	0
Provincial level operations & budgeting	5	5	5	10	1	5	1
<b>SUB-TOTAL</b>	<b>15</b>	<b>80</b>	<b>47</b>	<b>42</b>	<b>11</b>	<b>21</b>	<b>2</b>
<b><u>Operational Management</u></b>							
Task/activity organization & control	0	5	5	10	1	5	1
<b><u>HR Development &amp; Training</u></b>							
Technical training & development	0	10	10	5	0	1	0
Management training & development	1	10	5	5	1	1	0
HR Mgmt. - Performance systems	0	5	10	5	1	1	0
Facilities construction & maintenance	5	5	1	10	5	1	5
Supply & Logistics operations & control	0	5	10	5	0	5	0
Finance transactions & accounting	5	10	5	5	1	1	0
<b>SUB-TOTAL</b>	<b>11</b>	<b>50</b>	<b>46</b>	<b>45</b>	<b>9</b>	<b>15</b>	<b>6</b>
<b><u>Monitoring/Evaluation</u></b>							
Medical services	0	5	10	10	1	5	0
Public Health services	0	5	10	10	1	1	0
Organisational functions & support services	1	10	1	5	1	1	0
Financial analysis & auditing	5	10	5	5	1	1	0
Evaluation studies	1	10	1	1	1	1	1
<b>SUB-TOTAL</b>	<b>7</b>	<b>40</b>	<b>27</b>	<b>31</b>	<b>5</b>	<b>9</b>	<b>1</b>
<b><u>Legal &amp; Regulatory</u></b>							
Law & regulation formulation/adoption	10	10	1	0	1	1	0
Law/Reg. dissemination & enforcement	10	10	5	1	1	1	1
Judicial process & penal operations	0	10	1	5	5	1	0
<b>SUB-TOTAL</b>	<b>20</b>	<b>30</b>	<b>7</b>	<b>6</b>	<b>7</b>	<b>3</b>	<b>1</b>
<b>TOTALS</b>	<b>79</b>	<b>250</b>	<b>140</b>	<b>146</b>	<b>68</b>	<b>61</b>	<b>27</b>
KEY: Major or Prime Responsibility = 10; moderate responsibility = 5; some involvement/responsibility = 1; no involvement = 0							

## The Structure of the Ministry of Health & Medical Services (MHMS)

To achieve the policies of the MHMS the organisation delivers its services through five major divisions and sections. Each is headed by an Undersecretary or a Director. These are:

**Health Improvement:** There are a number of national public health programs under this division as well as links to the provincial health services

**Public Health:** The priority public health national programs operate under this division. Many of these programs have operated in a very vertical manner from the national headquarters to the most basic provincial services at the nurse aid post. Most of these programs were and continue to be funded

by external development partners (DPs). Its current management is trying to create integration among these public health services, both nationally as well as and particularly in the provinces.

**Health Care:** This division manages curative health services including the National Referral Hospital (NRH). It also manages all the support services for clinical care like diagnostic services, pharmacy, scientific medical information, etc. It also manages professional boards of clinical staff.

**Health Policy and Planning:** This division manages the processes of national and provincial health planning, monitoring and evaluation. While it is every manager’s responsibility to plan, manage, and monitor the activities under his/her span of control, this Division defines and maintains the processes related to the core managerial functions so that they are done in a uniform manner throughout the MHMS and can be easily aggregated for Executive management. These processes are supported by the HIS, infrastructure development, and procurement as well as the national medical stores.

**Administration and Management Services:** This Division manages the processes of human resource planning, development (HRD), and HR management. It also manages financial budgeting, accounting, and auditing.

The current organogram of the MHMS is shown in the Figure 1 below:

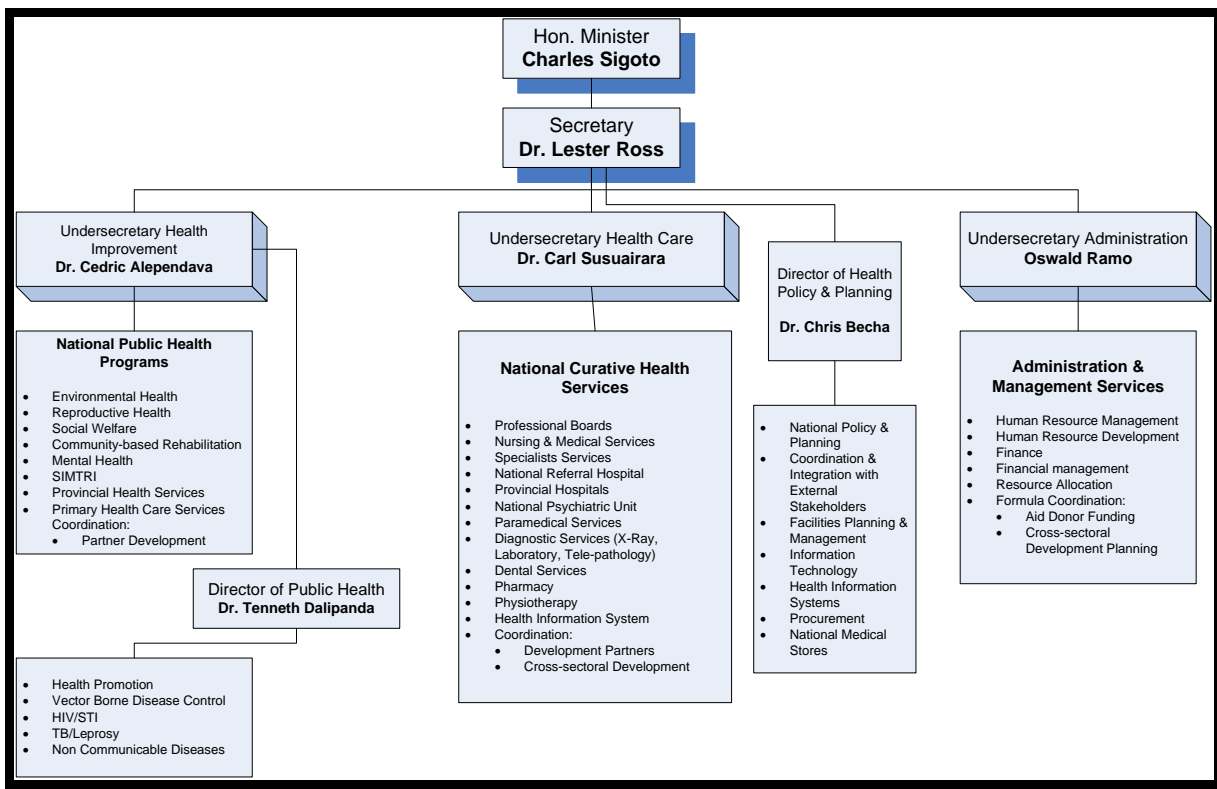


Figure 1

## Resources and Management System

Managing the health sector and the health and medical services within the sector is possibly the most difficult sector to manage. There are so many competing demands and many of the decisions which determine what are priorities and what will be done and what will not be done can have life or death consequences.

The most important resource in any health sector is the human resources. Health is part of the human service sector (like education); therefore, it is fundamentally “people helping people.” How health human resources are planned, developed, managed and monitored is critical to good

performance of any health sector. The MHMS is in the process of completing the Solomon Islands first ever human resource plan for health. Health human resource planning is critical in that medical specialists take longer to pre-service train and credential - as long as 8 to 10 years – than any other profession in any sector. This plan will then drive the decisions about which health cadres to develop with what skills and how many of each over the next decade.

Better planning of the allocation of funds related to priority policies (and related services) has also begun as part of the NHSP process. This will still take a few years to significantly improve as past practices have been built on past allocations, rather than zero-based planning and budgeting (where past practices and allocations are not taken as a given).

As above, the NHSP is functionally linked to almost two dozen national program and provincial plans. The MHMS is improving its HIS to be able to more effectively monitor all these plans individually and, for the Executive level, all plans collectively. The Executive will maintain focus on the highest priority policies (mentioned in the Permanent Secretary's Overview) and drive the organization to achieve both the substantive and organizational indicator targets. Also for the first time, the MHMS has specifically planned how organizational policies will be achieved. In most cases these will address system or sub-system development and operation, like the human resource planning sub-system above. Many of the MHMS requisite organizational systems and sub-systems either didn't exist at all or they operated in a very ad hoc, unsystematic manner.

As health services are funded almost entirely by the public sector (SIG and DPs), the public should not be spending significant amounts to access or pay for any aspect of health services. The 2005/6 National Report of the Household Income and Expenditure Survey suggests that this is true. The average household spends less than 1% (only 0.31%) on health and medical expenses. Urban household spending was a little higher, but it was still less than 0.5% while the rural household average was 0.24%. Some suggest that these percentages may actually be somewhat higher – maybe 1 to 3 %; however anything under 3 to 5 percent of household expenditures is a very low figure. As access to and use of health services is also very equitably distributed among all five socio-economic quintiles, the SIG/MHMS does protect families from catastrophic health care costs. Also it can be argued that the SIG funding of the services; the service distribution; and the service quality all create an effective mechanism for income re-distribution within the country.

Recent increasing in funding for the health sector has been dramatic. Since 2005 MHMS budgets have increased in real terms per capita at an average annual rate of over 16%! The actual spending from 2006 to 2009 increased also in real terms per capita by 19% per year. Both as a percentage of GDP and the percentage of SIG total revenues (4-5% for the former and 9-16% for the latter) the allocations to health are high for a country of the Solomon Islands other indicators. The per capita expenditure has also risen significantly since 2005 at Sol\$ 299 to \$533 budgeted in 2010 (\$462 actually spent in 2009). A more complete analysis of past, present, and future health financing is found in the MTEF document which is a companion to this plan.

It seems those past increases at the same rates will not continue between now and 2015. Table 14 shows the current scenario displaying all sources. The significant drop in future Development Partner funding is not what will actually happen. Future development partner funding beyond two years for some DP's is difficult for them to predict, or certainly commit, to as they operate on 2-year funding cycles. Note that this scenario would suggest a decline in total per capita health spending of almost 40% (39.7%) by 2015. This much of a decline would certainly lead to a decline in services, therefore, health status.

Table 14

2011* 2012* 2013* 2014* 2015*							% of Total
<b>SIG Allocation to Ministry of Health &amp; Medical Services (SBD\$ 000,000's)</b>							
Recurrent	212	212	212	212	212	212	64%
Development	21	21	21	21	21	21	6%
<b>Sub-Total</b>	<b>233</b>	<b>233</b>	<b>233</b>	<b>233</b>	<b>233</b>	<b>233</b>	<b>70%</b>
<b>Development Partner Funds</b>							
Recurrent	241	201	178	165	99	99	30%
Development	43	0	0	0	0	0	0%
<b>Sub-Total</b>	<b>284</b>	<b>201</b>	<b>178</b>	<b>165</b>	<b>98.5</b>	<b>98.5</b>	<b>30%</b>
<b>Total Funds</b>							
Recurrent	452	412	389	377	310	310	94%
Development	64	21	21	21	21	21	6%
<b>Total</b>	<b>516</b>	<b>433</b>	<b>410</b>	<b>398</b>	<b>331</b>	<b>331</b>	<b>100%</b>
<b>Total Health/capita</b>	<b>967</b>	<b>797</b>	<b>744</b>	<b>710</b>	<b>583</b>	<b>583</b>	
% Annual Change		-17.5%	-6.6%	-4.7%	-17.9%	-17.9%	
<b>% Period Change</b>							<b>-39.7%</b>

Table 15 profiles a scenario which would maintain the level of spending at about the same per capita expenditures as in 2011. The variation year to year of about 1% increase or decrease and the overall period change of 0.8% is essentially a “constant” funding scenario. Note that in order to achieve this “constant level,” there is a gradual increase in development budget under SIG funding and almost a 27% increase in DP recurrent funding. In this scenario no additional funding is suggested for DP development budget funding as in the recent past development budget spending has been constrained by a capacity to spend; therefore it show a slow ramping up from 2011 levels.

Table 15

2011* 2012* 2013* 2014* 2015*							% of Total
<b>SIG Allocation to Ministry of Health &amp; Medical Services (SBD\$ 000,000's)</b>							
Recurrent	211.5	211.5	211.5	211.5	211.5	211.5	38%
Development	21	31.5	32.55	34.65	36.75	36.75	7%
<b>Sub-Total</b>	<b>232.5</b>	<b>243</b>	<b>244.05</b>	<b>246.15</b>	<b>248.25</b>	<b>248.25</b>	<b>45%</b>
<b>Development Partner Funds</b>							
Recurrent	240.9	280.7	293.2	305.3	305.4	305.4	55%
Development	43	0	0	0	0	0	0%
<b>Sub-Total</b>	<b>283.9</b>	<b>280.7</b>	<b>293.21</b>	<b>305.25</b>	<b>305.35</b>	<b>305.35</b>	<b>55%</b>
<b>Total Funds</b>							
Recurrent	452.4	492.2	504.7	516.8	516.9	516.9	93%
Development	64	31.5	32.55	34.65	36.75	36.75	7%
<b>Total</b>	<b>516.4</b>	<b>523.7</b>	<b>537.3</b>	<b>551.4</b>	<b>553.6</b>	<b>553.6</b>	<b>100%</b>
<b>Total Health/capita</b>	<b>967</b>	<b>964</b>	<b>975</b>	<b>985</b>	<b>975</b>	<b>975</b>	
% Annual Change		-0.3%	1.1%	1.0%	-1.0%	-1.0%	
<b>% Period Change</b>							<b>0.8%</b>

In order to increase services and health status – to among others, meet the MDG targets; then there needs to be a real term, per capita increase in health spending. The increase does not need to be dramatic, but significant. Table 15 provides a scenario that suggests increasing DP development budget funding (budget support) such that the total development budget is a 15% average of the total health expenditure over the 5-year period. This is a reasonable percentage given the MHMS infrastructure status and other development needs. This scenario has a total period change increase of

over 10% which is about an average of 2% per year – which is both defensible and feasible, given the MHMS management and current spending capacity.

Table 16

	2011*	2012*	2013*	2014*	2015*	% of Total
<b>SIG Allocation to Ministry of Health &amp; Medical Services (SBD\$ 000,000's)</b>						
Recurrent	212	212	212	212	212	35%
Development	21	32	37	42	42	7%
<b>Sub-Total</b>	<b>233</b>	<b>243</b>	<b>248</b>	<b>254</b>	<b>254</b>	<b>42%</b>
<b>Development Partner Funds</b>						
Recurrent	241	251	267	289	305	50%
Development	43	30	35	40	50	8%
<b>Sub-Total</b>	<b>284</b>	<b>281</b>	<b>302</b>	<b>329</b>	<b>355</b>	<b>58%</b>
<b>Total Funds</b>						
Recurrent	452	462	478	500	517	85%
Development	64	62	72	82	92	15%
<b>Total</b>	<b>516</b>	<b>524</b>	<b>550</b>	<b>582</b>	<b>609</b>	<b>100%</b>
<b>Total Health/capita</b>	<b>967</b>	<b>964</b>	<b>998</b>	<b>1040</b>	<b>1072</b>	
% Annual Change		-0.3%	3.5%	4.2%	3.1%	
<b>% Period Change</b>					<b>10.8%</b>	

## Values and Operating Principles: (see Annex II for more complete definitions)

### Concept and Utility of Values:

There was some discussion of what the definition of values contributed to the health sector and the stewardship and overall management of the health sector. In other words, what is the “value” of having clearly defined health sector values? First, **values can be viewed as characteristics of the health sector** that those is stewardship and management roles as well as the politicians and the general public should want to realize for their health sector. To that extent individually and collectively they can be seen as **broad goals for the sector, but not measurable objectives**. While there are measures that can be ascribed to different values, overall they are relative and subjective. All these values are terms that define concepts that are at least three or four levels of abstraction.

However, **values may also be used as decision criteria** in making all strategic decisions and many minor decisions as well. In all health sectors there are many very difficult trade-off decisions from a policy level down to technical operations – agreed values help weight the decision options. In the Solomon Islands several of values listed below have already been achieved as a sector goal; for example, universality and equity. However, it was discussed and clearly agreed by the Executive group that they did not want to drop them from the values menu because of their decision criteria value. The MHMS did not want any “achieved value” to become a diminished characteristic of the sector going into the future. The seven Values in the agreed “menu” are below:

#### Comprehensiveness -

The comprehensiveness is a value which requires that the “menu” of services provided should be a logically decided and related to levels of care (primary, secondary, and tertiary) and the nation’s referral system.

#### Universality –

The universality value defines that all residents of the country must be entitled to the health services provided by the nation’s health sector on uniform terms and conditions, but this does not imply all will get equal care.

#### Equity/Accessibility –



This ensures citizens have reasonable access to hospital, medical and surgical-dental services un-precluded or unimpeded by excessive charges or other means (e.g., discrimination on the basis of age, gender, ethnicity, health status, or financial circumstances).

**Quality and Caring Services –**

This implies both “technical” medical and public health quality and the more subjective aspects of caring services. The latter is the manner of provider-patient/client human interaction by which services are delivered – whether the services are delivered with human care and compassion.

**Effectiveness with optimal efficiency –**

Effectiveness can be examined at macro and micro levels. Health sector macro effectiveness can be assessed and analyzed by the multi-year trends in health status. At a micro level (service delivery) the same effectiveness concepts and analysis apply which define whether the outcomes of a single disease or illness are improving over time.

**Responsiveness –**

This includes whether and how well health services respond to client or patient needs - proximity of services, opening hours, average waiting times, etc. It also can be considered as bio- and medical technology responsiveness – does the health sector stay up-to-date.

**Transparency, Openness, Public Trust**

To what extent does the public or the majority of the public truly understand what the issues in the health sector are, and to what extent does the public have trust what they are being told by the stewards and service providers of the health sector.

## Operating Principles:

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### Concept and Utility of Operating Principles -

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This menu of principles are somewhat similar to values, but relate more to characteristics of **how the health sector functions and operates**, rather than overall sector characteristics. These principles also tend to define and describe more tangible features of sector functions and operations.

**Stewardship & Publicly Administered**

This principle accepts that the public’s good health status and the health services that facilitate improving health status are a “public good.” As a result, health requires proactive stewardship and governance by a group(s) comprised of people who are very knowledgeable regarding all the very complex issues and trade-offs in health. Every government has the ethical responsibility to ensure the health sector functions in the optimal public interest whether or not the government provides any services itself or not.

**Public Health – Medical Model Balance**

Every country’s health sector has some of each one of these two models that define and “drive” the sector’s major and minor decision making. The operating principle here (and the related decisions made) is not that one or the other completely dominates all decisions – it is the relative balance between the two.

**Political Acceptability & Harmony –**

Those who are the stewards of the health sector will try to maintain optimal political support at the national, provincial levels, and community levels. They will try to ensure that health sector issues are regularly reviewed by requisite political bodies to ensure understanding and acceptability, and the requisite political decision making is undertaken. This includes promoting and enacting requisite health-related legislation. In addition to the proactive efforts to engage political and legislative relationships with the health sector, efforts will be made to try to ensure that the health sector/system and services are also not abused politically.

**Professionalism –**

All managers and staff will know what their job tasks are; they will try their best to keep up-to-date their knowledge and skills related to each task; they will be aware which of their job

tasks make the most difference in improving the health status; and they will make every effort to work in harmony as a team member in teamwork spirit with other health service providers.

## Policies:

### Substantive Policies and Relative Priorities

Substantive National Health Policies	Rank Order Priority
The health sector and some health-related sectors, especially education, will reduce the most important <b>individual and family behavior-related risk factors</b> through health promotion and some prevention services	1
The health sector and health-related sectors will reduce the most important <b>causes of the disease burden</b> which are feasible to reduce with cost-effective interventions and services.	2
The health sector and health-related sectors will reduce the most <b>important environmental risk factors</b>	3
The health sector will reduce the most important <b>medical condition risk factors</b> through health promotion and prevention (mostly screening) and some case management/treatment services	4
The health sector will reduce the most important service delivery conditions risk factors	5
The health sector will gradually move toward the “packaging” of health services with “levels of care” as the dominant approach	6
The health sector and health-related sectors will improve the health status of the age and gender population groups especially women and children considered to be the highest priorities	7
The health sector and health-related sectors will continue to try to reduce the other causes of the Solomon Islands disease burden; however, the services to implement mitigation of these lower priority causes will be uneven and often under-resourced services.	8

### Policies & Relationships to Existing Programs and Services

Substantive National Health Policies	Lead Programs & Services
The health sector and some health-related sectors, especially education, will reduce the most important <b>individual and family behavior-related risk factors</b> through health promotion and some prevention services	Health Promotion; Nursing Services; NCD Program; Nutrition Program; Mental Health; Social Welfare; Provincial Health (esp. health promotion)
The health sector and health-related sectors will reduce the most important <b>causes of the disease burden</b> which are feasible to reduce with cost-effective interventions and services.	Vector Borne Disease Program ; TB/Leprosy Program; HIV/STI Program; NCD Program; NRH (esp. medical specialty services); Nursing Services; Provincial Hospitals; Provincial Health Services, (esp. MCH services); Community-based Rehabilitation
The health sector and health-related sectors will reduce the most <b>important environmental risk factors</b>	Environmental Health Program; Health Promotion; Provincial Health (esp. health promotion)
The health sector will reduce the most important <b>medical condition risk factors</b> through health promotion and prevention (mostly screening) and some case management/treatment services	NCD Program; Nutrition Program; Health Promotion; Provincial Health (esp. health promotion); Nursing Services
The health sector will reduce the most important service delivery conditions risk factors	Nursing Services; Specialist Care Services; Professional Boards; National Referral Hospital (NRH); Provincial Hospitals;
The health sector will gradually move toward the “packaging” of health services with “levels or care” as the dominant approach	MHMS Executive; Clinical & Public Health Managers; & Provincial managers; HR (Planning)
The health sector and health-related sectors will improve the health status of the age and gender population groups especially women and children considered to be the highest priorities	Child Health Program; Adolescent Health Program; Reproductive Health Program; Health Promotion; Provincial Health

The health sector and health-related sectors will continue to try to reduce the other causes of the Solomon Islands disease burden; however, the services to implement mitigation of these lower priority causes will be uneven and often under-resourced services.	NCD Program; NRH; Provincial Hospitals; Provincial Health Services; Nursing Services
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In a variety of ways every Program and Service will contribute in some way to every Policy. However, translating every Policy into practice is not the primary responsibility of every Program or Service. Therefore, the Programs and Services mentioned in the right hand column are the ones considered to be those who will take leadership on the various activities needed to realize the policy.

### Organizational Policies and Priorities

	<b>Organizational National Health Policies</b>	<b>Rank Order Priority</b>
1	MHMS; Ministry of Public Services; and Ministry of Finance will focus efforts to better and more completely integrate <b>human resource (HR) planning; production and development; HR management.</b>	<b>1</b>
2	MHMS; Ministry of Infrastructure; Ministry of Development Planning & Aid Coordination; Ministry of Finance; and Provinces, will focus efforts to better integrate <b>health facility and staff housing</b> planning and design; construction contracting; construction supervision and commissioning; and facility & housing maintenance.	<b>2</b>
3	The SIG, especially the MOF, and MHMS will focus efforts to better and more completely integrate and improve the performance of the <b>financial planning and budgeting; expenditure procedures and accounting; and auditing</b> for both development and the recurrent budgets as well as the international contributions to the health sector.	<b>3</b>
4	<b>Decentralize</b> decision making to Provinces & cooperate with Provincial Governments	<b>4</b>
5	The MHMS will focus efforts to better and more completely integrate and improve the performance of the <b>procurement</b> planning and specification processes; tendering for both LCB and ICB; in-country distribution, delivery, installation, and where needed, storage systems; inventorying/stock tracking and requisition management.	<b>5</b>
6	As part of effectively implementing all the above policies, the MHMS will improve overall performance by planning and implementing a concerted <b>organization and management development</b> program.	<b>6</b>
7	Maintain the Publicly owned & managed/Publicly financed type of health system	<b>7</b>
8	The SIG, especially the Ministry of Development Planning and Aid Coordination, and MHMS will better and more completely integrate <b>planning, monitoring and evaluation</b> planning; HIS and health survey operations; and information analysis and management decision support through monitoring outputs and evaluation reports.	<b>&lt;7</b>
9	Develop & better integrate <b>Information &amp; Communication Technology (ICT)</b> systems	<b>&lt;7</b>
10	<b>Collaborate with Central agencies; other Ministries; NGO, FBOs, Communities &amp; community-based organizations (CBOs) and traditional healers</b>	<b>&lt;7</b>
11	<b>Improve Relationships with DPs</b> via SWAp	<b>&lt;7</b>
12	Adopt & evolve toward a <b>Functional Organizational Structure</b> for the MHMS	<b>&lt;7</b>
13	Promote improve <b>alliance</b> with regional & international <b>Professional Organizations</b>	<b>&lt;7</b>
14	Develop <b>expanded Legal capacity</b> within MHMS	<b>&lt;7</b>

## List of Policies & Relationship to Existing Organisational Units & Functions

	<b>Organizational National Health Policies</b>	<b>Lead Organizational Units</b>
1	Integrate <b>human resource (HR) planning; production and development; HR management.</b>	HR Management; HR Development; Executive; Policy & Planning Division; Provincial Health; Provincial Governments
2	Integrate <b>health facility and staff housing</b> planning; construction & maintenance.	Infrastructure Unit; Policy & Planning (overall); Provincial Health; Provincial Governments
3	Improve the performance of the <b>financial planning and budgeting; expenditure procedures and accounting; and auditing</b>	Financial Management; Finance; Policy & Planning; Provincial Health
4	<b>Decentralize</b> to Provinces & cooperate with Provincial Governments	Provincial Government; Executive; Policy & Planning; Provincial Health
5	Improve the performance of the <b>procurement</b> system	Procurement Unit; National Medical Stores;
6	Improve overall performance by an <b>organization and management development</b> program.	Executive; Policy & Planning; Provincial Health
7	Maintain the <b>Publicly owned &amp; managed/Publicly financed type of health system</b>	Executive
8	Integrate <b>planning, monitoring and evaluation</b>	HIS; Policy & Planning; IT; Executive; Provincial Health; Provincial Governments
9	Develop & better integrate <b>Information &amp; Communication Technology (ICT)</b> systems	IT Unit; HIS; Policy & Planning; Provincial Health
10	<b>Collaborate with Central agencies; other Ministries; NGO, FBOs, &amp; Communities &amp; community-based organizations (CBOs) and traditional healers</b>	Executive; Provincial Health Offices; Policy & Planning; NGO/FBO; Provincial Government; Communities
11	<b>Improve Relationships with DPs</b> via SWAp	Executive & DPs
12	Adopt & evolve toward a <b>Functional Organizational Structure</b> for the MHMS	Executive
13	Promote improve <b>alliance</b> with regional & international <b>Professional Organizations</b>	Nursing & Medical Services
14	Develop <b>expanded Legal capacity</b> within MHMS	Executive; Ministry of Justice & Legal Affairs

As with the Substantive policies, in some ways every Organizational Unit may contribute to most Organizational Policies. However, translating every Policy into practice is not the primary responsibility of every Organizational Unit. Therefore, the Units mentioned in the right hand column are the ones considered to be those who will take leadership on the various activities needed to realize the respective Policy.

### Priority Substantive Policies related to Priority Organizational Policies

<b>Substantive National Health Policies</b>	<b>Organisational Policies</b>
The health sector and some health-related sectors, especially education, will reduce the most important <b>individual and family behavior-related risk factors</b> through health promotion and some prevention services	HR expansion & HRD; Decentralize & cooperate with Provincial Gov't.; Collaborate with NGO, FBO & CBOs; ICT; Financial systems;
The health sector and health-related sectors will reduce the most important <b>causes of the disease burden</b> which are feasible to reduce with cost-effective interventions and services.	HRD; Health facility & Staff Housing; Decentralize & cooperate with Provincial Gov't.; Collaborate with NGO, FBO & CBOs; ICT; Procurement;
The health sector and health-related sectors will reduce the most <b>important environmental risk factors</b>	HR expansion & HRD; Decentralize & cooperate with Provincial Gov't.; Collaborate with NGO, FBO & CBOs; Financial systems;

The health sector will reduce the most important <b>medical condition risk factors</b> through health promotion and prevention (mostly screening) and some case management/treatment services	HRD; Decentralize & cooperate with Provincial Gov't.; Collaborate with NGO, FBO & CBOs; ICT;
The health sector will reduce the most important service delivery conditions risk factors	HRD; Decentralize;
The health sector will gradually move toward the “packaging” of health services with “levels or care” as the dominant approach	Planning & M&E; Organization & Management Development;
The health sector and health-related sectors will improve the health status of the age and gender population groups, especially women and children considered to be the highest priorities	HRD; Decentralize & cooperate with Provincial Gov't.; Collaborate with NGO, FBO & CBOs; ICT;
The health sector and health-related sectors will continue to try to reduce the other causes of the Solomon Islands disease burden; however, the services to implement mitigation of these lower priority causes will be uneven and often under-resourced services.	HRD; Health facility & Staff Housing; Decentralize & cooperate with Provincial Gov't.; Collaborate with NGO, FBO & CBOs; ICT;

### Overall Strategic Focus:

As with the last strategic plan, policies define “what to do;” and strategies define “how to” carry out the policy. While the specific of the “how to” will vary with each policy, in order to define the basic type of strategic change for the medium term period, it is best to first define the types of strategic change. For both Substantive and Organizational Policies managers and planners were given a menu of six types of strategies. These are:

“**Do New**” implying that the policy itself is new and all activities will also be new ones;

“**Do More**” implies that the Policy and a set of activities exist, and they will be quantitatively increased;

“**Do Better**” implies that the Policy and a set of activities exist, and they will be qualitatively improved;

“**Diversify**” implies that the Policy and a set of activities exist; existing ones will be maintained, but some new activities will be added;

“**Do Less**” implies that the Policy and a set of activities exist, but they will be quantitatively decreased; and

“**Reassign/Collaborate**” implies that the Policy and a set of activities exist; but some or all activities will be reassigned to another organization or group of organizations, or active collaboration will begin or be improved with other organizations doing the same or related activities.

In most health sectors one normal strategic decision is to “Do More.” This is natural if the country’s population is still growing – health services need to keep up with the public’s increasing demand. While the Solomon Islands population is still growing; as above, it seems the financing for the health sector may not increase faster, or even as fast, as population growth.

Therefore, the SIG/MHMS has decided that for the next 5 years their primary strategic focus will be first to “**Do Better.**” In order to conform to the principles and practices of Primary Health Care (PHC), the SIG/MHMS has selected as their second strategic focus to “**Reassign/Collaborate**” with other ministries/sectors, Provincial Governments, communities/community-based organizations, NGOs/FBOs, and traditional healers. Mostly they will “collaborate” with these other groups or organizations rather than “reassign” activities that the MHMS is currently carrying out.

These overall strategic decisions do not imply that absolutely no new or expanded activities may be carried out. Rather it implies that the dominate type of “how to” will be “Do Better” and “Collaborate.” Several of the Organizational policies can be carried out with activities that require no direct,

incremental cost, or very little cost. Therefore, in this policy category there may be a higher number of “Do More” strategy types selected.

## Policies, Strategies, Objectives, Activities, Indicators and Resources

The matrix below defines the priority strategies, objectives, activities, indicators and requisite estimated resources required to turn each policy into practice. The listing under each policy by no means implies that these are the only objectives relevant to that policy, these are just those considered the more important – again the priorities. Because so many things need to be done and so many activities can be done within the health sector, priorities need to be decided upon at every level!

### Substantive National Health Policies

Strategy	Objective	Activities	Indicator	Resources
Policy: Reduce the most important <b>individual and family behavior-related risk factors</b> through health promotion and some prevention services				
Do Better, Do More, and Collaborate more in carrying out a variety of health promotion	1.1. MHMS staff will be trained or given continuing education materials to increase their awareness of various basic health topics including NCD risk factors & priority diseases.	Design & implement health promotion training scheme for all MHMS professional and technical staff mostly carried out in Provinces. Revised pre-service training materials including nursing and allied health curricula;	By 2011 80% of a random sample of MHMS staff passes a KAP type exam on various basic health topics.	Begin at about \$8.8 million/year or 1.6% of Total Budget – increase to 3.5% by 2015  [Same total allocation for all Promotion objectives]
	To provide health promoting school (HPS)/child friendly school (CFS) initiatives	Implement Action Plan: school health instruction; inspection; health services & community organisations, school boards	By 2015 75% of primary schools practice either HPS or CFS according to the national standards	
	Roll out of Tobacco, Alcohol, Betel nut, & Drugs (TABD) IEC programs	Conduct KAP Survey; design campaign; develop materials; conduct IEC	By 2015, 75% of communities will report in the DHS survey reduced abuse of Tobacco, Alcohol, Betel nut and Drugs	
Do Better job of promoting breastfeeding	Prepare and distribute IEC materials to promote breastfeeding	Prepare and place Radio announcements & print media; reinforce message with health staff	By 2015, 60% of infants are exclusively breastfed until six months of age and continued for 24 months with introduction of complementary feeding from six months.	
The health sector and health-related sectors will reduce the <b>most important causes of the disease burden</b> which are feasible to reduce with cost-effective interventions and services.				
Do More & Do Better Vector Borne Disease control	Effective intensified nationwide control of malaria	<u>Vector Control:</u> mass distribution (provided free) & recommended use of LLINs; intermittent residual spraying <u>Case Management:</u> introduce artemisinin based medications; introduce malaria RDTs in all health facilities; case management training & supervision all	Reduce annual incidence rate of malaria by 65% from 128/1000 (end 2007) to 46/1000 (target 20-25% end of year 3, 85/1000); with a focus on low performing provinces and communities (MDG 6.6)	\$67.5 Million/ year or 11.8% of total – reduce to 5% by 2015

		health facilities; improved quality of microscopy		
Do Better TB & Leprosy prevention & case management	Scale-up high quality DOTS in all provinces, to achieve an increased case detection rate and maintain high treatment success rates	Continue staff training in DOTS; Supervise DOTS administration; Ensure drug supply; improve lab services	Reduce the TB prevalence from 175/100,000 in 2010 to 140/100,000 by 2015 (MDG 6.9)	\$18.3 Million/year or 3.2% should decrease to about 2.0% by 2015
Do Better service provision at NRH	All departments in NRH will improve their performance (NCRA policy priority)	Carry out the 3 highest priority objectives defined by each NRH Department;	By 2012 all provinces and NRH define their annual primary health care and curative service targets. By 2015, all provinces & all departments in NRH achieve 80% of their service targets.	\$67.7 Million/year or 11.8% of total to decrease to 10% by 2015
Do Better service provision at all rural health facilities	All rural health facilities will improve their performance.	Undertake two priority tasks defined by each department in Provincial hospitals & two tasks by all rural health facilities	By 2012 all provinces define their annual primary health care and curative service targets. By 2015, all provinces achieve 80% of their service targets.	Estimated amount to be estimated by MTEF
Do Better Mental health service provision	Greater integration within the mental health service, particularly national and provincial programs	Arrange times for supervision and case review & consultation (could be by radio); Introduce referral/consultation protocols for use within the mental health service; Regular provincial tours by senior mental health professionals	Greater integration between MHMS community-based services. Indicator: By 2013 10% of psychiatric patients jointly managed by MHMS & the communities themselves. By 2015 up to 15%. By 2012 national level senior mental health professionals will provide supportive supervision to provincial mental health officers at least once a month.	About \$4.7 million/year or 0.8% to increase to about 1.2% by 2015  [Same total costs for all mental health objectives]
<b>The health sector and health-related sectors will reduce the most important environmental risk factors</b>				
Do More Rural Water & Sanitation Systems	Construct new RWSS systems	Identify projects; Procure & deliver equipment; construct & test; involve community	1. At least 10 new community water supply systems per year are constructed. The total population with improved drinking water source will increase to 80% by 2015 (MDG 7.8) Total population with improved sanitation will be 40% by 2015 (MDG 7.9)	\$39.3 Million /year or 6.9% of budget staying about the same by 2015
Do Better maintenance of existing RWSS	Ensure existing systems are functional	Involve communities in system maintenance	At least 85% of existing systems are functional at every	[Included in above]



systems			year end	
The health sector will reduce the most important <b>medical condition risk factors</b> through health promotion and prevention (mostly screening) and some case management/treatment services				
Do More & Do Better NCD Program operations	Reduce the prevalence of Diabetes & Cardiovascular Cancer Nutritional Disorders	Campaigns and program actions to reduce under-nutrition & malnutrition in children & over nutrition in adults; physical inactivity; tobacco use; excess alcohol consumption & betel nut abuse	Reduce prevalence of NCD risk factors (tobacco smoking, unhealthy diet, physical inactivity, alcohol and substance abuse by 5%; Reduce prevalence of Diabetes and Hypertension by 5%; Reduce cancer mortality by 10%; Increase diversification of food produced by 10%;	\$1.25 million/year or 0.2% to increase to 1.5% by 2015
Do Better on infant & mothers dietary supplementation	Ensure de-worming & supplements are available used along with diet recommendations	Procure & distribute Vit A & Iron; distribute infant & toddler Diet guidelines which should include use of variety of locally grown foods	By 2015 90% children 6-59 months get 1 dose Vit A/6 mo; 90% get de-worming 1/6 mo.; 80% women get folic acid (MDG 1.8)	\$17 million or 3% budget to increase to 4% by 2015 [Includes reproductive health & other MCH below]
The health sector will reduce the most important <b>service delivery conditions risk factors</b>				
Do Better service provision at NRH	Increase focus on reducing medical & nursing practice errors in both inpatient and outpatient services	Ensure the new Quality Unit interacts with all Departments as planned; each define procedures & checklists to reduce errors	Reduce medical errors by 15% by 2015; & Overall patient satisfaction increases by 5% /yr.	Estimate about \$500,000 of NRH's \$67.7 Million/ year or 0.7% of total to increase to 1.0% by 2015
Do Better nursing practice	Improve care delivery processes	Develop Collaborative Care delivery model to meet the needs of patients to achieve realistic patient outcomes	Practice of model will reduce errors by 10%	\$7.9 Million or 1.4% total for Nursing Administration only part of it for this. Stay the same up to 2015
	Improve infection control in all health facilities	Edit/up-date protocols & train & distribute manual to all staff; supervise practices	By 2015 all provincial hospitals & NRH will practice infection control daily with 100% efficiency	
The health sector will gradually move toward the <b>"packaging" of health services</b> with "levels or care" as the dominant approach				
Diversify how health services are packaged	Determine optimal method of organizing and providing services - this will include:  A focus on Primary Health Care; with an enforced referral system;  Clarifying exactly what Tertiary Services are as distinct from	Study approaches by Levels of services, Mode or location of service; type of disease; type of service. Make final decision; evolve to new approach	By 2015 services will be 80% re-organized to the optimal "packaging" and a functional, enforced referral system. By December 2011 role delineation will be finalized defining PHC, referral practices, & tertiary services  NRH will be moved by 2013 & 80% of the Committee's recommendations will be carried out	Very limited or no direct cost except NRH moving & mini hospital development. Some consulting input



	<p>Secondary services;</p> <p>Relocation of NRH &amp; further pursue recommendations made by the Special Parliament Committee on the quality of service at the NRH;</p> <p>Up-grading AHC to "Mini Hospitals" (integrating Primary &amp; Secondary services)</p>		<p>By 2013 five "mini hospitals/integrated AHC" will be in operation</p> <p>By 2012 all provinces deliver services according to this new approach. This approach should emphasize Healthy Islands concept and revitalized Primary Health Care (PHC) approach.</p>	
<p>The health sector and health-related sectors will improve the health status of the <b>age and gender population groups</b>, especially women and children, considered to be the highest priorities</p>				
Do Better EPI operations	Improve the coverage of EPI operations & services	Revision of the supportive supervision check-list; Supervisory follow-up in priority AHCs by the Provincial EPI Coordinator; Update cold chain inventory annually; Improve & monitor stock management at provincial & AHC levels	By 2015 average coverage of all vaccinations varies but most at or close to 90% by 2015 (MDG 4.3) By 2014 average coverage of all vaccinations is above 90% and above 80% for low performing provinces]	\$ 8.8 million or 1.5% of total to increase to about 1.5%
Do Better reproductive health	Provide expanded family planning & other services, particularly for adolescents	Procure & deliver contraceptives & other supplies; train staff in counseling; provide & monitor clients; expand essential obstetric care;	20% increase in CPR by 2015 to 41.5; maternal mortality reduced by 75 % from 1990 (550) to 2015 (last know at 100/100,000 in 2009) (MDG 5.1 is already achieved)  Increase % of births attended by skilled health personnel from 86% in 2009 to 92% by 2015 (MDG 5.2)	\$17 million or 3% budget to increase to 4% by 2015  [Includes mother & child nutrition inputs above]
Do More & Better domestic violence prevention & enforcement and child protection	Reduce domestic violence and improve child protection	Define up-dated protocols & Carry out staff training; work with justice system to reform practices	Social Welfare Officers, police, health care workers follow operational procedures 90+% of the time ensuring immediate and professional handling of child protection cases	
<p>The health sector and health-related sectors will continue to try to reduce the <b>other causes of the disease burden</b>; however, the services to implement mitigation of these lower priority causes will be uneven and often under-resourced services.</p>				
Do Better Community-based Rehabilitation	Ensure rehab services reach those in need	Provide home based therapy; Train health staff to do proper assessments; provide mobility aids; IEC for family caregivers	Increase of people provided services up to 1.5% of population by 2015 (3.5% of population estimated to need rehab services.)	\$1.47 Million/year or 0.2% of budget – increase to .05% by 2015
Do Better HIV/AIDS prevention	build capacities at the national and provincial level to	Integration of PMTCT services, establishment of youth friendly health	95% of pregnant women and partners access quality PMTCT services in 6	\$3.8 Million/year or 0.7% of total – increase to 1.5%

	train staff on guidelines for services that support the national HIV and AIDS response	services, linking these services to the broader reproductive health services; building capacities adolescents to participate in the HIV response. Build communication to create demand for utilization of services by the target populations' change behavior	selected health facilities; At least 20% of attendees of adolescent friendly services (a) By 2011 all public and private sector incorporate HIV/AIDS prevention, care and treatment interventions in their operations and management; (b) By 2015 at least 50% of high risk populations have ever tested for HIV; (b) By 2015, 95% of pregnant women and partners access quality PMTCT service in all AHC and hospitals.  20% of attendees of adolescent friendly services in areas of program convergence represent most at risk	by 2015
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## Organizational Policies

Strategy	Objective	Activities	Indicator	Resources
<b>Policy: HR Planning, Production &amp; Development and HR management</b>				
Do New HR planning	Produce a 10-year HR plan for all health cadres	Agree on method(s) to define demand; Define demand & supply; define mismatches; resolve mismatches; finalize plan	One approved 10 year HR plan by 2011	Only staff time – no incremental cost
Do Better HR Development	Integrate all training for all cadres & make all training more job centered	Job analysis; define training needs; develop training; conduct most (80%) training in Provinces; evaluate training	Pre & post tests show 50% improvement in scores	\$9.2 million of only SIG budget Or 4.3% - should be about 5% of total including DP
Do Better HR Management	As part of improved work planning, make job tasks and timings clearer Implement performance appraisal system?	Conduct team task analysis and define responsibilities, authorities, & accountabilities	80% of tasks are completed on time and at optimal quality levels	Very little direct or incremental cost
<b>Improve &amp; integrate facility &amp; housing planning, development &amp; maintenance systems</b>				
Do New Facility & Housing master planning	Create a system for producing facility & housing plans for all provinces & MHMS	Agree on method(s) to define demand; Define demand & status & likely resources; define priorities; resolve mismatches; finalize plan	One approved 10 year HR plan by 2011	Only staff time – some travel costs no major incremental cost
Do Better facility	Define an enhanced	Define possible	One approved	Staff time &

development	MHMS system for facilities development including moving NRH to a new location & at least 5 mini hospitals developed (NRCA policy)	approaches for design, construction, supervision, inspections, commissioning, etc.	facilities development system (may be differentiated by Province), 100% of priorities identified in 2010 & 2011 complete by 2014 (NRH moved by 2014)	some travel & communication costs
	Renovate high priority facilities	Determine which are priorities & needs; carry out renovations & construction	All 100% priorities identified in 2010 and 2011 complete by 2013	In general capital costs should be about 10-15% of total health budget – recently it is much less
Do Better facility & housing maintenance	Develop a maintenance system with possible involvement of communities	Define system options & costs; select best options; implement	System will be functional in all provinces by 2012	Costs part of above total facility costs
Improve the performance of the <b>financial system</b> – planning/budgeting, expenditure, accounting, and auditing				
Do Better financial system operations	Ensure all operating units are able to operate requisite financial procedures	Complete installation and training of staff in MYOB; supervise the submission of provincial and program acquittals; continue to make audit more rigorous	All operating units with spending authorities operate MYOB by 2012; 95% of acquittals submitted on time by 2012	Minor costs – some Training costs & communication costs
<b>Decentralization</b> actions to move more responsibility, authorities, and accountabilities to Provinces				
Do New MHMS decentralization program	Prepare a MHMS decentralization plan including required agency agreements & MOUs (NRCA policy priority)	Define decision menu & link to proposed draft financial decision authorities table; agree with Executive on authorities to be altered both at MHMS & Provinces; provide training & support in Provinces as needed	100% of planned changes are functional by 2012 and Provinces are making requisite decisions; increase in Provincial interactions & joint decision making	Staff time; some travel & training costs; est. \$200,00
Integrate and improve the performance of the <b>procurement</b> planning and specification processes; tendering for both LCB and ICB; in-country distribution, delivery, installation, and where needed, storage systems; inventorying/stock tracking and requisition management.				
Do Better procurement	Revise NMS procurement systems to make more cost-effective purchases & delivery	Explore other modes of procurement & suppliers; Select other options if appropriate; operate by revised system; inspect purchases; evaluate	Reduce total costs or improve quality for same money, or both of drugs & medical supplies. Reduce real term costs by 10% by 2013	Staff time & communication costs
Improve overall performance by planning and implementing a concerted <b>organisation and management development</b> program.				
Do a New O&M program	With the new NHSP as a basis, prepare a new O&M development plan	Define any additional organisational and procedural changes; prepare needs assessment; develop learning program(s) for	All Managers at all levels will participate in at least one (1) event per year.  Project software	Investment costs about 20% of managers' staff costs or \$840,000 per

		Executive and middle managers, particularly Provincial managers	reports of entire MHMS organizational operations will improve to 80% "as planned" by 2015	year
<b>Integrate planning, monitoring and evaluation</b> planning; HIS and health survey operations; and information analysis and management decision support through monitoring outputs and evaluation reports				
Do Better planning & monitoring	Ensure planning and monitoring are directly linked at all levels	Ensure that all planned indicators can be and are captured by existing or planned monitoring methods (HIS, surveys, census, etc.); Training on MS Project use; DHS planning & implementation;	100% of all indicators are included by 2011; a minimum will be captured by special surveys	Staff time; continued HIS programming to produce regular output reports
<b>Develop &amp; better integrate Information &amp; Communication Technology (ICT) systems</b>				
Do Better ICT	Improve the ability of all staff to "connect" to and communicate with the rest of MHMS and outside health organizations	Develop a MHMS ICT master plan for 5 years & approve; add hardware & software according to plan; train staff as needed; maintain system	95% of staff can access and operate the ICT services relevant to them 80% of the time  HIS is fully operational by 2012;	By 2015 these costs should become close to 5% of total budget
<b>Collaborate with Central agencies; other Ministries; NGO, FBOs, &amp; Communities &amp; community-based organisations (CBOs) and traditional healers</b>				
Do Better at making these relationships active and positive	Ensure that these relationships are made more functional and collaborative	Define functions where new or better collaboration is needed or possible; write out possibilities; construct MOU or some agreement if needed; monitor changes & operations	20% increase in more structured relationships with communities by 2015; 100% of all Provincial Governments will have functional interaction with MHMS by 2015	Some travel costs and meeting costs & staff time
<b>Improve Relationships with DPs via SWAp</b>				
Do Better with DP relationships	Continue to define protocols and modes of interacting	Review SWAp ideal operations; Define outstanding difficulties in functional relationships; formulate solutions; try out & revise as needed	By mid 2014 all DP assistance will be planned as part of and conform to MHMS plans for the next 5 years. That is, the initial planning will all be done first in the MHMS standard planning process and format as part of the MHMS overall 5-year and annual planning process. These plans can then secondarily be edited to DP planning formats as required. Develop & operate a Technical Assistance Framework by end 2011.	Limited costs – mostly staff time, but no incremental time – it should reduce
<b>Adopt &amp; evolve toward a Functional Organisational Structure for the MHMS</b>				

Diversify the MHMS structure	Define and agree on revised organizational structure for the MHMS and make the requisite changes	Define functions of MHMS; define relationship needs and problems; analyze management staffing & skill mix; decide on new structure; make gradual changes toward revised structure	A new structure is adopted by 2015 and it will be at least 80% implemented by then;  Role Delineation (above) will also contribute to these organisational decisions.	Staff time – little direct costs; maybe some training costs, but not additional to training already budgeted
<b>Promote improve alliance with regional &amp; international Professional Organisations</b>				
Do Better interactions with professional organisations	Utilize relevant resources of Professional Organizations to the benefit of SI health managers and staff	Define Professional Organisations that can bring major benefit to SI health staff & expand membership and active alliances where feasible; draw training & other information from Organisations	By 2013 MHMS managers and leading professional staff will be aware of state of the art issues and practice knowledge in their respective fields and will contribute Solomon Islands knowledge to regional professional associations.	Membership fees; cost of reference material; travel costs for trips of conferences;
<b>Develop expanded Legal capacity within MHMS</b>				
Add a New MHMS capacity	To ensure that the legal needs of the MHMS are met in a professional legal manner and on a timely basis	Define the actual and priority legal needs of MHMS & decide on the options to develop the needed capacity within MHMS; take requisite action; managers & staff interact with legal resource as needed	Legal capacity meets 90% of MHMS legal needs by 2013 and beyond. Initial focus should be on working with operating units and the Executive to define regulations for existing health laws. [Capacity may be full time legal staff or serialized consulting inputs.]	Cost of staff or consulting inputs
<b>Maintain the Publicly owned &amp; managed/ Publicly financed Type of Health System</b>				
Possibly Diversify by periodically reviewing the other three options for the design of a health sector	Regularly (at least every 2.5 Years) seriously review and debate which of the 4 types of generic health systems is optimal for the SI needs.	Conduct at least one analysis & discussion session on types of health systems & the pros & cons of each for SI. Make strategic decisions for system change if any	Current indicators of high levels of equity; service provision like average OPD visits per year; EPI coverage; antenatal visits per pregnant mother; skilled staff attending deliveries suggest the current system is optimal & most cost-effective. Track these indicators for needed changes & by 2015 make possible system change decision.	Cost of staff time or consulting inputs – no other direct costs

## Monitoring and Evaluation

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### Monitoring Processes & Timing

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The primary effort in monitoring will be to collect and analyze data related to a set of agreed indicators. The potential number of indicators in any health sector is very large – the UK tracks over 500 in the National Health Service. In the Solomon Islands the MHMS tracks 26 categories of data on the existing HIS format – some of these categories have several specific types of data entered. At the completion of the cross analysis of the NHSP and the annual operational plans from Provinces and National programs, the HIS format may be revised to capture more or different types of data so that routine monitoring can be done as efficiently as possible.

Ideal monitoring should capture data and analyze it for at least one indicator for every point of the “Production Model” structure – from Inputs to Impact (see Figure 2 below). This would display the relationships and allow analysis of change along the continuum of both Organisational and Substantive performance. If performance at the “Impact” level was not as planned, a complete set of indicators would allow a manager who is monitoring progress or a periodic evaluator the possibility to “trace backwards” where problems were originating. When a service program or organisational system is newly established, it may take one or more years before any Outputs or Outcomes are reliably and measurably produced; therefore, during that start-up period only Inputs and Process indicators can be tracked. However, the MHMS will not be able to capture all indicators at all levels for all substantive programs and organisational operations within the next few years. Therefore, they must be selective for now.

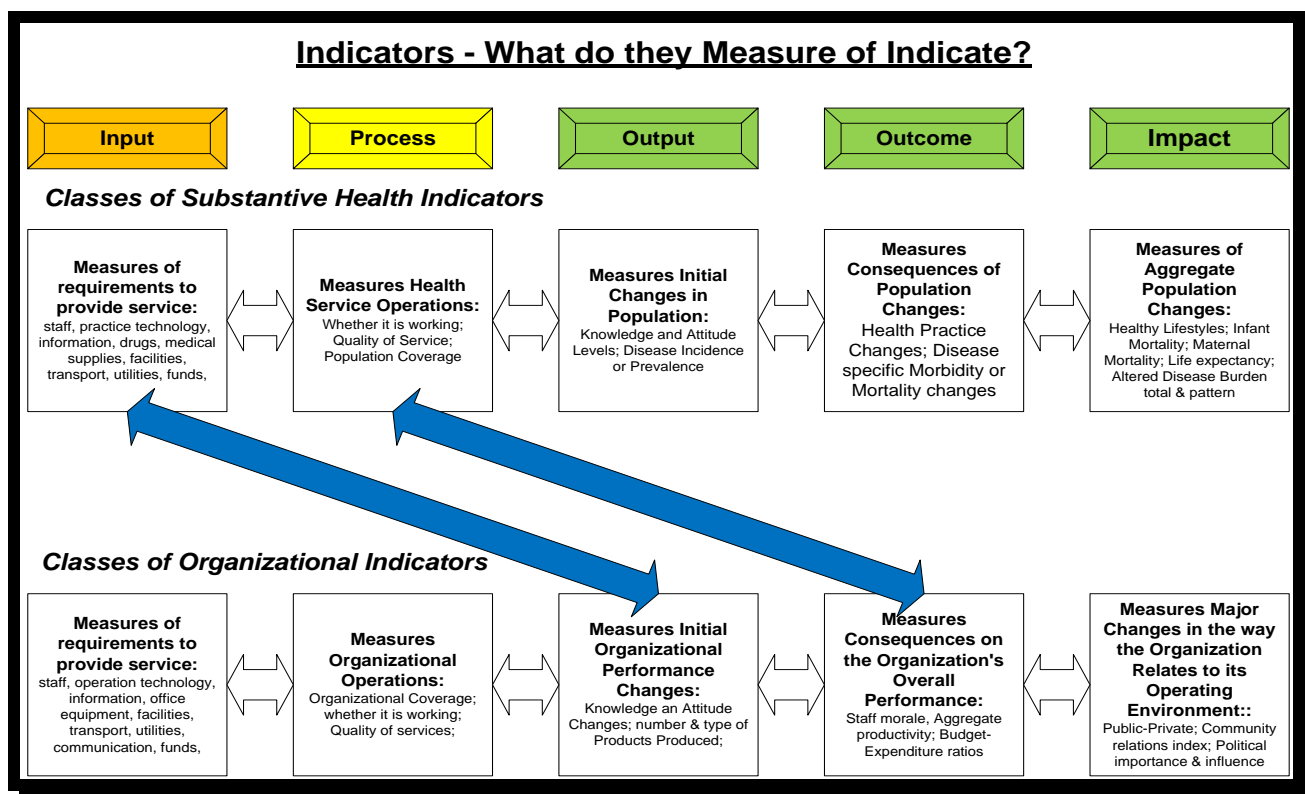


Figure 2

Substantive monitoring will be done on a monthly; semi-annually and on an annual basis mostly via the functional HIS. Indicators that for various reasons can't be integrated into the routine HIS, sample surveys may be carried out or National Program's may do some separate supplemental data collection, analysis, and reporting. Ideally the latter will be no longer practiced by 2013 or 2014. The output reports (tables) still need to be programmed into the new database structure. This should have been done first and based on the decisions that managers want to make, not based on what data someone thinks needs to be “captured.”

Organisational monitoring will primarily be done via the functions of routine reporting related to both the national and provincial levels and drawn from the new planning of organisational systems/sub-systems development. The financial monitoring will draw on the existing accounting and auditing systems (with the MYOB software as the “backbone” of the system. These reports will also be submitted and analyzed monthly; semi-annually; and then annually. The Substantive and Organisational monitoring will inter-relate as suggested in the graphic above.

Health data should be collected to support decisions for management, particularly the key management functions of planning and planning’s “mirror function” monitoring and evaluation. Therefore an assessment should start with the decision makers [MHMS, SIG Central Agencies, Provincial Governments, Communities, other SIG Ministries, NGOs, and DPs] to understand what decisions need to be made daily, monthly, annually, and long term then determine what information outputs are necessary to make these decisions; what analyses are needed to produce the requisite information; and what data inputs are needed to “fuel” the various analytical “engines” to produce the desired outputs and reports.

Every effort should be made to reduce the “burden of information collection”. Reducing the quantity of data usually increases the quality and frees valuable health workers to deliver services. Therefore, only collect the data which is necessary and which will be used. Information systems are always a hybrid of legacy, modified, and new systems designed for specific purposes. It is virtually impossible to create a monolithic system which meets the needs of all stakeholders. However, by incorporating clear data and interoperability standards, hybrid information systems can be very effective in sharing information and making health decisions at all levels.

All health information systems must support nationally established data standards (clear metadata for definitions and format) and standard interoperability protocols so that the data can be easily communicated from where it is collected to the decision point. There are multiple data collection points and data can be useful at the point of collection; vertically up the management chain; and also horizontally in related programs. If the data is collected using national standard definitions and available in a standard communication format, it can be easily transmitted from the point of collection to where it is needed (including to international organizations). Health information systems which do not support standards and which are closed to modification should be avoided. Open systems allow modification and support by local organizations which help to build capacity rather than relying on outside expertise.

In the Provinces the PHDs are burdened with so many clinical services, public health services, and managerial tasks that they have little time to effectively monitor any of these three categories of services and operations. Currently new positions cannot be created or additional staff hired due to the SIG-wide hiring freeze. Therefore, it is suggested that the MHMS engage a separate organisation or a team of people who are direct contracted employees to assist monitoring in the Provinces. One organisation that has a long history of working at Provincial and community levels is the Solomon Islands Development Trust (SIDT). They may be a possible organisation which could be contracted to provide this support service as they have such deep knowledge of provincial services issues and are considered to operate with objectivity and integrity. This monitoring support function would require at least one and possibly more persons per Province. While this strategy will create, to some extent, a triangulation of views (see Figure 3 below); this should be considered a “healthy” additional perspective with the purpose of improving performance. They should be first and foremost considered as management “helpers,” not monitoring “police.” They should be people who have some clinical or public health background – possibly those doing a course in public health, retired MHMS doctors or nurses, etc., and who know the MHMS systems. This arrangement has the possibility to:

- Add managerial capacity immediately in Provinces
- More completely analyze data and qualitative information;

- Analyze causes of operational performance problems;
- Give feedback to clinics
- Increase objectivity in terms of levels of service and performance;
- Limited risk of sanctions for the wrong reasons; and
- Contracting out this capacity may actually be less expensive.

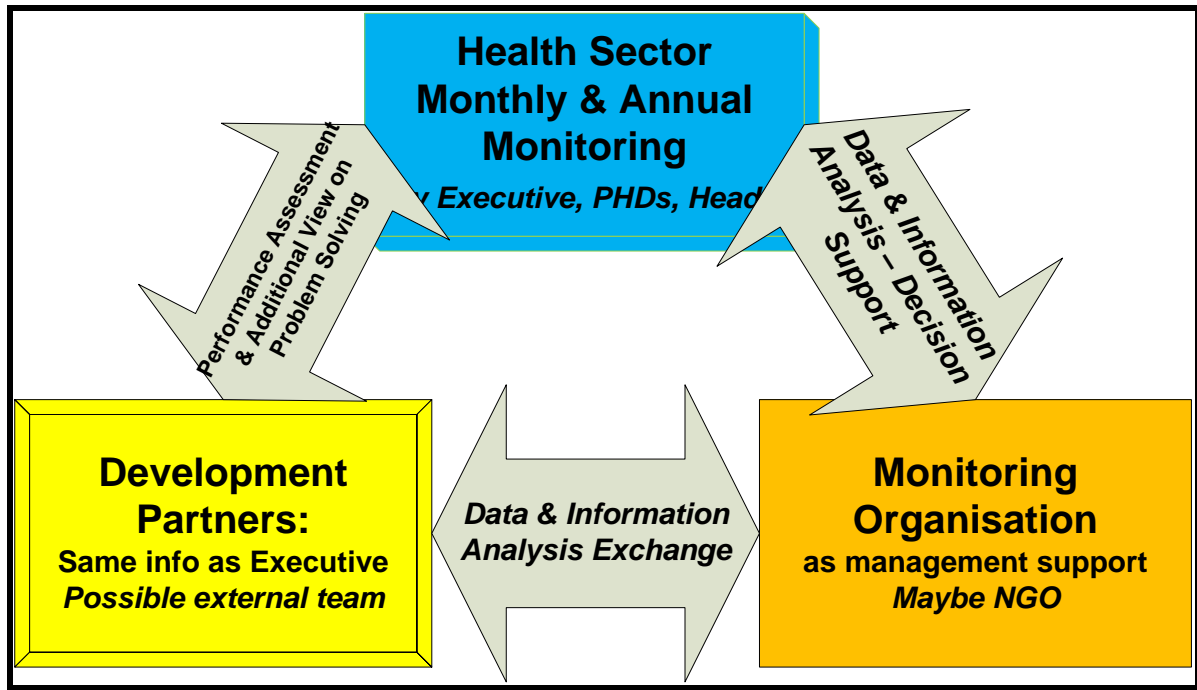


Figure 3

While this strategy is currently considered as a short to medium term measure until such time as the MHMS is able to hire more staff, during its implementation it may somewhat limit the internal MHMS capacity development of monitoring functions. There will be some additional contracting transaction "costs;" but as above, the direct financial costs may indeed be less. It may create the potential for some conflict if MHMS managers are threatened by this strategy and MHMS top management does not ensure its objective implementation.

The 2004 Primary Health Care Clinics Utilization created three benchmarks to assess PHC clinic performance. These were number of weekly contacts; annual clinic births; and annual inpatients (including total births). The benchmark levels were different for each type of service facility - NAP, RHC and AHC. In addition to the indicators below, which mostly relate to national programs, a set of benchmark indicators for provinces will be developed similar to those in the 2004 study - but not necessarily the same. It may be more indicators and they may be weighted so that an index score is developed. In addition, these should be adjusted per province to begin at their current levels, rather than a set of national standard benchmarks like was done in the 2004 study.

During 2010 and the initial development of the NHSP, the MHMS directly involved the Provincial Governments in this process. This was the first time any Ministry had involved them and the Provincial Premiers and Secretaries were very appreciative. It was provisionally agreed that in addition to their being more actively involved in the health planning process in their respective Provinces, they should also be involved in the indirect monitoring of health services and operations. This would lead to a quadrangulation of views on the health sector's performance as in Figure 4 below. There was some discussion of more formalized health management agreements or some type of MOU's with the Provincial Governments; however this will probably not be implemented immediately.



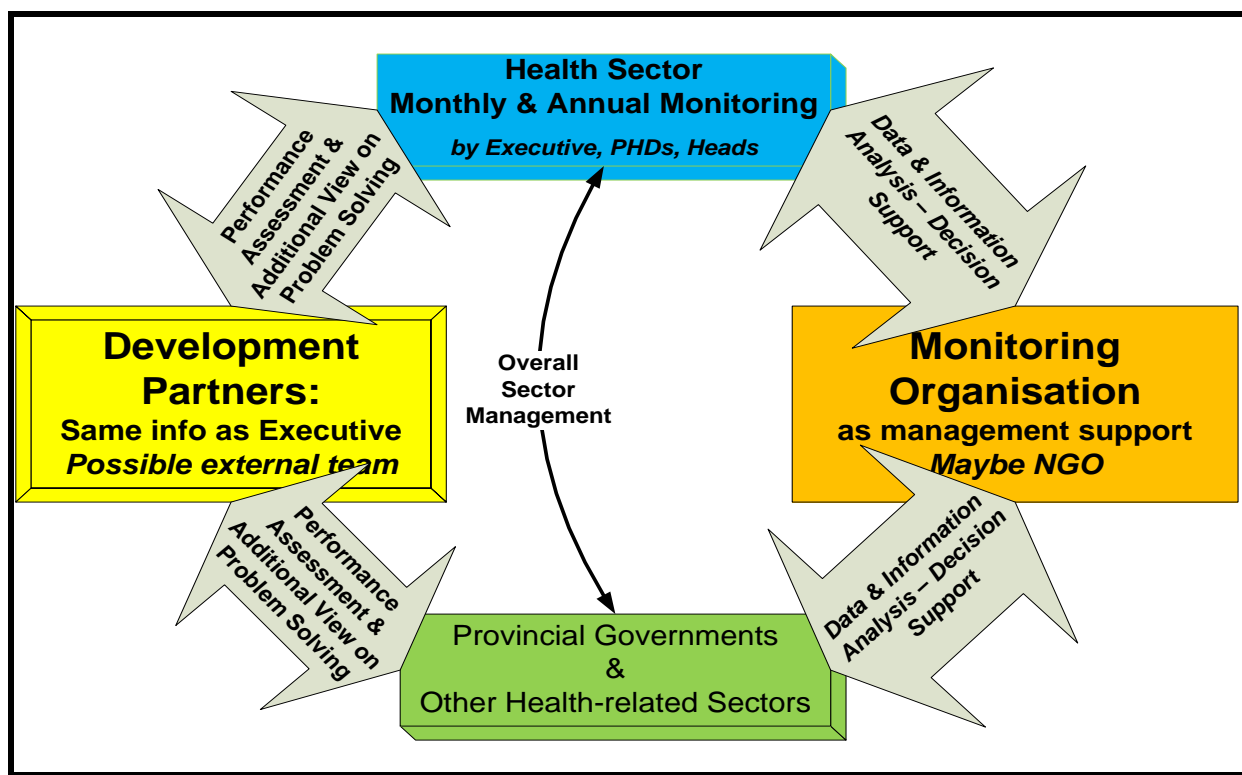


Figure 4

### Evaluation Processes & Timing

Evaluations will be done at the mid-term (2.5 years) and during the 4<sup>th</sup> year of the 5-year plan. These processes will utilize the monitoring information to first assess objective achievement. Unlike monitoring, evaluations should focus in-depth on causality and examine root causes of performance problems – not daily fixes to operational problems. These evaluations will attempt to carry out both first level and second level evaluations. The first level answers the central evaluation question: “Were the objectives achieved and if so, why; and if not, why not?” The second level will analyze and answer: “Were the original objectives the “correct” or optimal objectives?” This process will be implemented by an external person or team in collaboration with all parties.

The evaluation will aggregate indicators of change to create the “big picture” of the health sector’s status and whether the policies and overall goal (see page 7) were achieved. The aggregations will be grouped into Inputs, Processes, and Outputs – the health production model as in Figure 5.

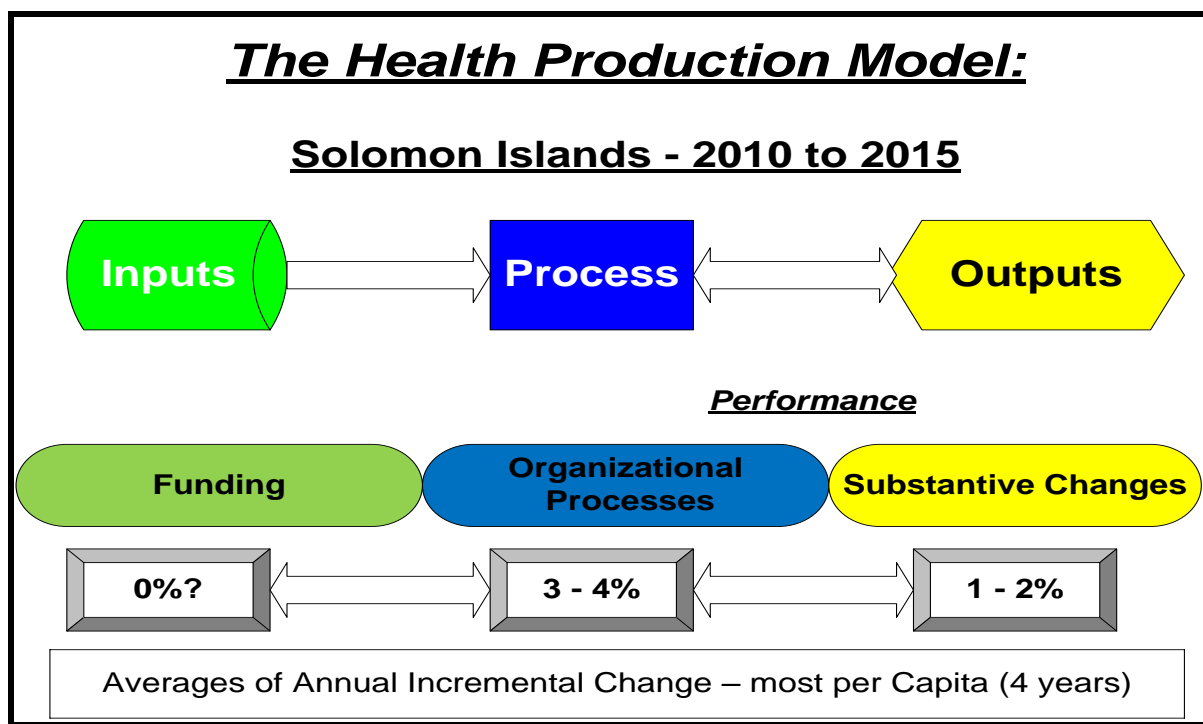


Figure 5

Monitoring Indicators – What will be monitored?

The following table provides the currently agreed indicators – both substantive and organizational – that the MHMS has defined as the priority set. These have been selected from each program or operating unit as the one indicator which best represents their overall performance. Many of the substantive programs will monitor more specific indicators which provide feedback on specific services to the public or internal support services, like cold chain operation. These indicators levels, or in cases, the indicators themselves, may be modified as the plan period evolves. [The related health macroeconomic, micro economic, and the financial management indicators are found in the MTEF, and are defined with a similar structure.]

Management Decision	Indicators	Current Level	Target 2015	Data Element	Source	Frequency
<b>Child Health</b>						
Are the preventable infant & under 5 deaths decreasing at a rate that is reasonable given our services & efforts?	Death rate of children under five years (CMR)  < 1 year death or mortality rate (IMR)	CMR – 36/1,000 IMR – 30/1,000	CMR – 29/1,000 IMR – 25/1,000	Numerator: Under 1 year age deaths in 12 months Denominator: Total live births in 12 months divided by 1,000	HIS – Deaths section	Monthly trends; Annual analysis
<b>Nutrition</b>						
Are the stunted children being identified & improving their nutrition to get above the stunted threshold?	Prevalence of stunting in under 5's	2007 DHS - 32.8%	Reduce the number stunted by 20% each year	Numerator: Total number of < 5's that weigh & measure below stunted threshold in 12 mo. Denominator: Total under 5 age cohort	HIS – Child Nutritional Status section	Monthly trends; Annual analysis

Management Decision	Indicators	Current Level	Target 2015	Data Element	Source	Frequency
<b>Maternal Health</b>						
Are the numbers of preventable deaths of mothers dying in childbirth being reduced?	Maternal Mortality Rate (MMR); correct management of obstetric emergencies.	2007 DHS – 185/100,000 live births; Now 140/100,000	120/100,000	Numerator: Number of maternal childbirth-related deaths/year Denominator: Total live births in year divided by 100,000	HIS – Deaths section	Monthly trends; Annual analysis
<b>Environmental Health</b>						
Is the % of the population without sustainable access to safe drinking water and basic sanitation going to double from what it was in 2000?	Number of rural community WATSAN projects per Year	52/year	90/year	WATSAN projects actually installed in 12 months	Environmental Health operations records	Monthly trends; Annual analysis
<b>Health Promotion</b>						
Are health promotion actions significantly changing behavior of the public per the priority initiatives? (campaigns, training, staffing projects)	KAP changes after integrated community health promotion with stakeholders is jointly rolled out HS/ICD activities in 4 provinces (MP,GP, IP, MUP)	KAP at 5-10 practice levels	KAP at 50-60%? practice level	Numerator: Those confirmed practicing new behavior Denominator: total number of public surveyed [Baseline 4 selected sentinel sites)	Survey	Annual
<b>Community-Based Rehabilitation</b>						
Are the rehab services expanding to reach more of the disabled in communities that need assistance?	Ensure rehab services reach those in priority need in the communities.	1999 census says 12.6% households have someone disabled. ___% of those that are priority need. ___ number covered in 2010; CBR Report changes	___ number covered per year increases over 2010 number; changes in numbers & % change in CBR Report section	Numerator: priority need disabled actually given CBR services Denominator: total priority group in need of CBR services  Direct count & % change of CBR Report section on HIS form	HIS – Supervisory, CBR, & Medical Tours section (CBR Aide Tour data changes) & % changes in CBR Report section	Monthly trends; Annual analysis
<b>HIV/STI</b>						
Is the health sectors objective knowledge of STI & HIV prevalence increasing?	Expand STI/HIV surveillance with regular quarterly reporting.	2010 difference in the % of those syndromically diagnosed & those tested	Annual increases & overall trend in the % difference (diagnosed & those tested)	Numerator: all those tested for HIV Denominator: all ages all genders seen & diagnosed with some STI	HIS – Sexually Transmitted Infection & VCCT Program section	Annual

<b>Management Decision</b>	<b>Indicators</b>	<b>Current Level</b>	<b>Target 2015</b>	<b>Data Element</b>	<b>Source</b>	<b>Frequency</b>
<b>SIMTRI</b>						
Is there an increase in quality research within SIMTRI & MHMS?	No. of research studies conducted & published	— number of studies in 2010	— number and % increase over 2010 level	Direct count of publications	SIMTRI operations records	Annual
<b>Vector Borne Control</b>						
Is the conduct of Routine M&E at Provincial level resulting in planned changes in malaria case detection; treatment & deaths?	Comparison of planned & actual levels per Province & trend analysis of each	2010 incidence levels	Annual changes in raw numbers & % differences between planned & actual	Numerator: all cases detected; all cases treated; all presumptive & confirmed malaria deaths Denominator: planned cases detected; treatments; & death reductions	HIS – Clinical Malaria Cases; Malaria Rapid Diagnostic Test Results; & Deaths sections	Monthly & Annual
<b>TB/Leprosy</b>						
Is high quality DOTS in all provinces being scaled up, to achieve an increased case detection rate & maintain high treatment success rates?	Supervision visits to peripheral health units by AHC team each quarter from Y1 to Y5  Number of new smear positive pulmonary tuberculosis patients reported among tuberculosis suspects investigated	70 visits in 2011  2010 17% (151/888)	276 visits in 2015  2015 10% positivity rate, 7% reduction	Direct count of AHC team supervision visits  Numerator: Number of TB suspect found to be positive Denominator: Number of TB suspect investigated during the same period	TB operational reports  TB Lab Report	Monthly Annual  Quarterly Annual
<b>NCD Program</b>						
Is more Public being screened through NCD & HIS?	-Diagnosed NCD cases.  Diabetes Morbidity.	2010 number of community screened & Diagnosed by diseases.	2015 number of community screened & diagnose ___% change.	Direct count of numbers of events, calculated % increase	NCD reports /HIS.	Monthly/ Annual.
<b>Mental Health</b>						
Are the numbers of mental health cases changing? (as expected)	Changes in numbers of patients diagnosed with mental health problem by age & gender conforming to	2010 Total number of cases diagnosed by age & gender	2015 Total number of cases diagnosed by age & gender & % change in each	Direct count of number of events; calculation of annual % change (generally increase)	HIS: NCD & Mental Health section & Mental Health Referral	Monthly Annual

	estimated proportion of public					
Management Decision	Indicators	Current Level	Target 2015	Data Element	Source	Frequency
<b>Nursing Division</b>						
Is the process to improve the delivery of care being implemented and making a difference?	Collaborative care delivery model development and implementation (to meet the needs of patients to achieve realistic patient outcomes)	2011 Model adapted to SI & completed	2015 Model by practiced by 75% of all nurses	Binary – Model complete (yes or no); Direct count of nurses practicing model	Operations Records; Nursing survey?	Annual
<b>NRH</b>						
<b>Are patient care practices and outcomes changing &amp; improving where they should?</b>	<b>Average LOS? BOR</b>	2009 ALOS=6.9 Acute beds ALOS=6.0 BOR=81.4	ALOS=6.2 Acute beds ALOS=5.7 BOR =850	<b>Total</b> patient days all wards divided by total admissions Average daily census. Total beds	NRH records	Monthly & annual

## Funding & Strategic Changes

Definition and analysis of future health financing scenarios is complex at the moment. Some organizations, like the IMF are still predicting some significant GDP growth over the next 5 years. However, the SIG Ministry of Finance suggests that there will be no “real term” (discounting for inflation) growth per capita for the next 5 years. Given the global economic situation, which does not indicate any major bright medium term outlook overall, health planners would be wise to assume there will be no or very, very little real term, per capita increases in Solomon Islands health funding up to 2015. While playing with various scenarios is possible, it is likely of little value at this point until some clearer signals of change emerge.

In the meantime, the existing distortions in total health fund allocations do need to be seriously dealt with. The results of the decision process managers engaged in May 2010 are found in the table below. This table is not a final agreement, and **it only suggests the types of strategic allocative shifts necessary** to improve performance. Some additional fund proportions could be withdrawn from the “Headquarters and Admin.” line and also provided to the Provinces, as some of the costs included in that line are for utilities and other basic operating costs in the Provinces. In general the pattern would be to **reduce the funding allocations at the national program level and re-allocate those funds directly to the Provinces** to plan and manage/operate those same programs within each Province. Note the suggested 14% reduction from the national programs and the 17% increase for the Provinces. Also the NRH needs to be downsized somewhat; conversely Provincial hospitals need to be built up – both physically expanded in cases, and in others more sophisticated services need to be developed. These percentages of allocative shifts are the types of changes that need to be strategically managed over the next 5 years.

These decisions and actions themselves should lead to some efficiency gains. However, many other efficiency gains can be made both at a micro and macro levels via staff re-assignments; combined tours and travels; more job-specific/need-based training done within Provinces; community participation in facility development and maintenance; etc. As above, there is a need to reallocate funds among the various substantive programs and organizational functions/units. The development budget also needs serious attention. First, what those development funds are used for within MHMS needs clear definition. Then the recent trend in serious under expending of development funds needs to be corrected.

**Exemplary Strategic Shifts in Total Allocations – Percentages are most important, not amounts**

<b>SUMMARY Headings</b>		<b>TOTAL</b>	<b>% of Total</b>	<b>2015 % Change</b>	<b>2015 Desired %</b>
<b>HQ Admin &amp; Planning</b>					
1	Headquarters & Admin	67,608,893	14.89%	-1.0%	13.9%
2	Policy & Planning	8,435,192	1.86%	0.5%	2.4%
3	Nursing Council Board	523,178	0.12%	0.0%	0.1%
4	National Health Training & Research	1,274,293	0.28%	0.5%	0.8%
5	National Nursing Administration	7,943,336	1.75%	0.0%	1.7%
<b>HQ Sub-total</b>		<b>85,784,892</b>	<b>18.9%</b>	<b>0%</b>	<b>18.9%</b>
<b>National Programs</b>					
6	National Non-Communicable Disease	1,246,742	0.27%	-0.1%	0.2%
7	National Reproductive & Child Health	16,849,112	3.71%	-2.0%	1.7%
8	National HIV/STI	3,810,287	0.84%	1.0%	1.8%
9	National TB/Leprosy	18,263,623	4.02%	-3.0%	1.0%
10	National VB Disease Control	65,221,679	14.36%	-8.0%	6.4%
11	Social Welfare	1,399,443	0.31%	1.0%	1.3%
12	National Health Promotion	3,128,448	0.69%	1.0%	1.7%
13	National Environmental Health	39,341,405	8.66%	-5.0%	3.7%
14	National Mental Health	4,671,840	1.03%	1.0%	2.0%
<b>National Programs Sub-total</b>		<b>153,932,579</b>	<b>33.9%</b>	<b>-14%</b>	<b>19.8%</b>
<b>National Referral Hospital</b>					
15	NMS Drugs & Medical Supplies (44%)	15,747,135	3.47%	-2.0%	1.5%
16	National Referral Hospital	67,748,325	14.92%	-5.0%	9.9%
17	National Dental Program	3,607,868	0.79%	0.0%	0.8%
18	National Medical Imaging Services	1,772,455	0.39%	1.0%	1.4%
19	National Laboratory Program	2,843,525	0.63%	1.0%	1.6%
20	National Pharmacy Division	1,946,557	0.43%	0.0%	0.4%
21	Eye Division	996,208	0.22%	1.0%	1.2%
22	Physiotherapy & Rehabilitation	1,417,186	0.31%	1.0%	1.3%
<b>National Referral Hospital Sub-total</b>		<b>96,079,259</b>	<b>21.2%</b>	<b>-3%</b>	<b>18.2%</b>
<b>Provinces</b>					
23	Honiara City Council	7,488,954	1.65%	1.0%	2.6%
24	Malaita	26,230,810	5.78%	3.0%	8.8%
25	Makira/Ulawa	7,561,474	1.66%	2.0%	3.7%
26	Western	17,034,238	3.75%	2.0%	5.8%
27	Isabel	6,877,962	1.51%	1.0%	2.5%
28	Central	5,939,525	1.31%	1.0%	2.3%
29	Guadalcanal	11,189,098	2.46%	2.0%	4.5%
30	Temotu	6,811,105	1.50%	1.0%	2.5%
31	Choiseul	6,544,580	1.44%	1.0%	2.4%
32	Rennel & Bellona	2,688,757	0.59%	1.0%	1.6%

33	NMS Drugs & Medical Supplies (56%)	20,041,808	4.41%	2.0%	6.4%
	<b>Provinces Sub-total</b>	<b>118,408,311</b>	<b>26.1%</b>	17%	<b>43.1%</b>
	<b>TOTAL</b>	<b>454,205,041</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>

## Implementation Arrangements

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### Operational Plans relationship to the NHSP

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The main “bridge” between the NHSP and its realization on the ground is the set of operational plans – both National Programs and Provinces. Each operating unit can enter their priority objectives and activities for the 5-year period, and then that can be “un-packed” year to year in a more detailed annual plan entry. Each manager will have her/his own plan, but it will be part of and recognized by the NHSP used by the Executive for sector management in collaboration with the DPs. Therefore, this overall strategic plan will be “married” to some two dozen or more Program, Province, and MHMS divisional or unit plans. The one strategic plan and the other 2 dozen plans will continually interact – monthly, yearly, and over the life of this 5-year plan period. They all must be kept as “living” management tools.

## Annex I

### Background & Definition of Needs for Change

Therefore, as above, currently it can be concluded that the **majority of the problems in providing better health services and improving health status are organizational and managerial**, not substantive or financial. This NHSP below tries to address these needs.

<b>DALY &amp; Cost-Effectiveness Comparisons of Countries</b>				
<b>Country</b>	<b>Total DALY *</b>	<b>Spending per Capita in International \$</b>	<b>Nominal CER** (in Int. \$)</b>	<b>DALY Per Person***</b>
Australia	10,600	2,080	\$19,623	0.11
<b>Canada</b>	<b>14,183</b>	<b>2,363</b>	<b>\$16,661</b>	<b>0.14</b>
China	15,577	143	\$918	0.16
<b>Costa Rica</b>	<b>18,597</b>	<b>460</b>	<b>\$2,473</b>	<b>0.19</b>
Cuba	14,183	303	\$2,136	0.14
<b>Indonesia</b>	<b>20,636</b>	<b>54</b>	<b>\$262</b>	<b>0.21</b>
Japan	10,645	1,763	\$16,562	0.11
<b>Malaysia</b>	<b>12,099</b>	<b>251</b>	<b>\$2,075</b>	<b>0.12</b>
Nepal	28,721	58	\$202	0.29
<b>New Zealand</b>	<b>10,364</b>	<b>1,469</b>	<b>\$14,174</b>	<b>0.10</b>
Papua New Guinea	21,013	79	\$376	0.21
<b>Singapore</b>	<b>9,566</b>	<b>744</b>	<b>\$7,778</b>	<b>0.10</b>
<b>Solomon Islands</b>	<b>20,053</b>	<b>92</b>	<b>\$459</b>	<b>0.20</b>
<b>Sri Lanka</b>	<b>18,426</b>	<b>99</b>	<b>\$537</b>	<b>0.18</b>
Turkey	17,710	326	\$1,841	0.18
<b>United Kingdom</b>	<b>12,745</b>	<b>1,512</b>	<b>\$11,863</b>	<b>0.13</b>
USA	14,183	4,055	\$28,591	0.14
<b>Zimbabwe</b>	<b>58,012</b>	<b>242</b>	<b>\$417</b>	<b>0.58</b>

\* a smaller DALY number indicates a healthier population - better overall health status; DALY values are per 100,000 population

\*\* Cost-effectiveness Ratio - smaller number is better

\*\*\* An indicator of the proportion (or %) of time the average person is significantly ill during the year

DALY is disability adjusted life year and has become the standard international comparative measure of disease burden. While it cannot be completely equated to a population's health status, it is the best single measure of a public's status that allows for country comparisons. One of its benefits is that it scores the relative consequences or impact on society of disease, illness and accidents, not just the amount of it.



<b>Disease Burden by Importance</b>		<b>WHO Estimates:</b>	<b>Solo mon Islands</b>
<i>137 separate causes; 3 major categories; 15 sub-categories; 4 sub-sub categories</i>			
<b>Most Important Causes</b>		<b>2008 DALY</b>	<b>2008 % of Total DALY</b>
<b>Total DALY scores of all Causes</b>		<b>20,053</b>	
1	<b>Ischaemic heart disease</b>	<b>1185</b>	<b>5.9%</b>
2	Cerebrovascular disease	1090	<b>5.4%</b>
3	<b>Unintentional injuries</b>	<b>1055</b>	<b>5.3%</b>
4	Unipolar depressive disorders	900	<b>4.5%</b>
5	<b>Musculoskeletal diseases</b>	<b>920</b>	<b>4.6%</b>
6	Maternal conditions	872	<b>4.3%</b>
7	<b>Malignant neoplasms</b>	<b>855</b>	<b>4.3%</b>
8	Malaria	776	<b>3.9%</b>
9	<b>Tuberculosis</b>	<b>688</b>	<b>3.4%</b>
10	Prematurity and low birth weight	630	<b>3.1%</b>
11	<b>Diabetes mellitus</b>	<b>569</b>	<b>2.8%</b>
12	Hearing loss, adult onset	554	<b>2.8%</b>
13	<b>Birth asphyxia and birth trauma</b>	<b>517</b>	<b>2.6%</b>
14	Chronic obstructive pulmonary disease	452	<b>2.3%</b>
15	<b>Diarrhoeal diseases</b>	<b>408</b>	<b>2.0%</b>
16	Congenital anomalies	403	<b>2.0%</b>
17	<b>Other unintentional injuries</b>	<b>376</b>	<b>1.9%</b>
18	Hypertensive heart disease	360	<b>1.8%</b>
19	<b>Endocrine disorders</b>	<b>355</b>	<b>1.8%</b>
20	Iron-deficiency anaemia	304	<b>1.5%</b>
		<b>Total</b>	<b>66.2%</b>

### Double Disease Burden

As the top 20 causes display, the country is dealing with the “double disease burden” of both communicable and non-communicable diseases. The country is in mid-phase of epidemiological transition; therefore, they have to deal with both the control of infectious diseases and the increasing incidence of non-communicable diseases, with limited resources. Note that these 20 causes out to the total of 137 define about two thirds of the total disease burden. This is typical of burden of disease analysis findings. The high DALY scores of 7 (seven) of the 20 causes suggest the developing status of Solomon Islands health status. These seven are: maternal conditions, malaria, tuberculosis, prematurity and low birth weight, birth asphyxia and birth trauma, diarrhoeal diseases, and iron deficiency anaemia.

Progress has been made in malaria control. The annual incidence rate was 77 cases per 1000 population in 2009; however, this is the national average and the incidence is very uneven among provinces – some are still well above 100/1000. Tuberculosis was at an incidence rate of 180/100,000 population in 2009 and cure rates were at 85%. The target is to bring TB down to 140 by 2015. Both diseases have vertical programs with high levels of international funding focused on reducing the

incidence of each. Although infectious diseases are still major causes of morbidity and mortality, the disease burden estimates display that many non-communicable diseases like cardiovascular and cerebrovascular diseases, neoplasms, and respiratory diseases, diabetes mellitus, tobacco-related diseases and mental illness are increasing.

The high levels of overweight (67% women & 63% men) and obesity (33% women & 26% men) verify the high levels of diabetes mellitus which is somewhat unusual for a country of this economic level. However, ironically infants and under 5's have different, but significant nutritional problems of being malnourished and undernourished which is why diarrhoeal diseases create such a high disease burden for the population as a whole. In the 2007 DHS, 38% of mothers reported that they took their under 5 child to a health facility in the last 2 weeks for ORS due to serious diarrhea.

Nevertheless, compared to the past, there has been a slight reduction in childhood mortality and morbidity from diarrhoeal diseases is attributed to the improved status of sanitation, water supply, personal hygiene and breast-feeding. A reduction in mortality due to neonatal causes is attributed to the improved status of maternal/safe motherhood programmes and services, supported by much improved paediatric care and the current focus on the integrated management of childhood illness (IMCI) approach. The maternal mortality rate (MMR) was estimated at 184/100,000 births in the last DHS. It is unlikely that it will reduce much more anytime soon as the travel distances and costs will remain significant for some time with such a low density population and poor transport availability.

Immunization rates are into the 80% coverage rates for most all types of immunizations. There have been no recent disease outbreaks of immunizable diseases reinforcing that the high levels of immunizations reported are likely valid. Herd immunity levels have been reached or are close to being reached. The other indicator of this health system's good performance and good connection with the public is the high rate of ante-natal visits and over 84% of all women giving birth with a skilled birth attendant present – most of these in a MHMS health facility.

To respond to the possible pandemic of H1 N1 influenza, in April 2009 the Solomon Islands carried out a mass vaccination campaign for health care providers in early 2010. The planning, preparation and implementation of the campaign had little negative impact on the rest of the national immunization programme.

The National Statistical Office projected the population between 1999 to 2010 to have an estimated annual population growth rate of 2.8%. If true, the total population of Solomon Islands in 2009 should be about 518,338. This is a very high growth rate for the current time period – most countries rates now are in the low 2% range or below. Average total fertility per woman has dropped from 4.6 in 2000 to 3.9 in 2008, but many countries comparable to the Solomon Islands; this figure is below 3 and often close to 2 per woman or close to approaching NRR 1. Not surprisingly CPR is still relatively low at about 35% in 2007. Adolescents are often disenfranchised from contraceptive use even from some of the health staff telling them contraception is not for them.

### Consensus of Communities' Views and Health-related Behaviors

In a survey conducted a few months ago to assist in preparing this plan the overall community defined needs, issues with the health services, and health-related practices were the following:

- Communities felt they had access to few or no health education materials or programs provided by health staff;
- Communities felt that the primary health issues affecting adults were: water and sanitation; smoking and alcohol abuse; malaria; and NCDs;
- The primary health issues affecting adolescents were: teenage pregnancies; alcohol and drug abuse; unemployment; and STIs and community members felt this group and their problems were a high

priority; [Note: while adolescent pregnancies for girls 15-19 have dropped from 57 per 1,000 in 2000 to 41 per 1,000 in 2008, this rate remains un-desirably high]

- The main reasons women present at a health facility are for reproductive health and childhood immunisations;
- Men attend clinic less often and present with malaria, and 'body aches;'
- People said they were often inhibited from seeking care due to the high cost of transport for themselves or family members either going to initial visits or being referred;
- Most respondents said they also sought treatment from traditional healers; and
- They experienced a range of charges by health facilities that were not consistent in amounts of seeming purpose for collection. These variances were both among health facilities, and in cases, health staff within the same facility.

The communities' views and experiences of their health problems seem reasonably consistent with the disease burden profile.

Most of the determinants of the diseases and illnesses in the Solomon Islands profile relate to individual and family behavior change and changing basic environmental conditions – primarily expanding safe drinking water supply and sanitation. Installing new water and sanitation systems is somewhat expensive and logistically difficult in the Solomon Islands. As above, further significantly reducing maternal mortality will require either a much wider distribution of emergency obstetric care facilities or much more proactive medivac services – with a combined water, road and air emergency transport system. Both of these strategies are very comparatively expensive to implement as complete systems. While more can be done to expand the medivac system, a fully functional, nationwide system is not considered feasible in the medium term and would be implemented at a major opportunity cost to other basic services. All the rest of the causes among the highest priorities within the disease burden profile are inexpensive to prevent and most are comparatively inexpensive to provide case management, depending on the management strategy.

## The Health System

In the same recent national survey of communities, health staff at primary level facilities defined the following issues with their work and working environment. These were: most staff have no job descriptions; health facilities without water or toilets; there is little implementation of infection control procedures; most facilities have no incinerator; there was a significant number of facilities without sterilisers; few facilities were using stock cards for control of medicines and supplies; there was a range of fees charged for patient services - there was no standardization even within the same province - and there was a lack of transparency in management of fees collected; there was a wide variation of diagnostic and standard treatment manuals available; the majority favored public health programs/health promotion staff being moved to Area Health Centre level.

Common points of discussion and expressed needs with hospital senior staff/program managers were: Health promotion should be recognized and implemented for all programs; public health programs to be should be recognized, but hospital services to be included; emphasize healthy aliens concept; community mobilization and health promotion; transition from national to provincial programs should be better coordinated; there should be an emphasis on HIV and TB because of probable increase in incidence; there should be a separation between child health and reproductive health; include 'men as partners in health'; programs should include gender based violence; they should also include adolescent health issues; management of pharmaceuticals is a problem; disaster plans should be included with links to NDP; there should be one plan which includes all programs for each Province; outcomes of new NHSP should be measurable; strategies should strengthen service delivery and outcomes; when considering budget allocations, consideration should be given to distances between health centres; geography of province; access to services, and to NRH and the cost of fuel and population taken into account; define the role of the health facility board or committee, the roles and

responsibilities and clarify legislation; training programs should be transferred to the provinces; focus of training programs should primarily be on-the-job training programs; and NHSP should be made available to all program managers.

Common findings from FBOs and NGOs were: Faith based organisations would like an umbrella organisation within the MHMS; most work collaboratively with MHMS and other agencies, however, there were varying degrees of co-operation with health agencies; NGO/FBO services are not found in all provinces, but in bigger provinces there are several.

### Ministry of Health and Medical Services (MHMS) as an Organization

In the Solomon Islands the MHMS is essentially the formal health service sector – there are some services provided by NGO/FBO organisations and a negligible quantity provided by private for-profit providers. While the shortcomings above mentioned by staff are problematic, overall the MHMS has performed reasonably well given the total funding for health. The equity of service provision is at outstanding level for any country, not to mention the socio-economic level of the Solomons, as shown by the benefit-incidence analyses. All five economic quintiles access and utilize health services almost completely evenly. As some indicators above suggest, while the public does access traditional healers also, they do use the MHMS services at levels at or above expected levels making an average of almost 2 outpatient visits per capita per year.

Nevertheless, one could consider that the MHMS is now at a crossroads. Continuing to improve service performance and health outcomes is unlikely with the current characteristics of the MHMS organization and the manner in which it has been managed over the past several decades.

Recent increase in funding for the health sector has been dramatic. Since 2005 MHMS budgets have increased in real terms per capita at an average annual rate of over 16%! The actual spending from 2006 to 2009 increased also in real terms per capita by 19% per year. Both as a percentage of GDP and the percentage of SIG total revenues (4-5% for the former and 9-16% for the latter) the allocations to health are high for a country of the Solomon Islands other indicators. The per capita expenditure has also risen significantly since 2005 at Sol\$ 299 to \$533 budgeted in 2010 (\$462 actually spent in 2009).

However, much of those increased funds for the MHMS as a whole have returned sub-optimal health outcomes for the following reasons:

- The MHMS is very “top heavy” and resources are very centralized
  - over 2/3 of all doctors are posted in Honiara (several provinces have only one doctor and some others only have 2);
  - Most funding is held at the central MHMS (in 2010, 64% was held at the central level);
  - Most signature authority remains at the central MHMS and most managerial capability remains concentrated in Honiara;
  - Most substantive programs are planned and managed from Honiara with little or no input from the Provinces and many of these program’s operations in the Provinces are carried out with minimal Provincial advance coordination – particularly the vertical programs with major international funding. (There are exceptions like the EPI program.)
- Most organizational functions are operated in a very ad hoc manner – the development of systems and good system operation has not been a priority – some examples:
  - The health information system (HIS) has provided no aggregated outputs for about 2 years due to re-programming the database;
  - There are a number of other program-related information capture and analysis efforts that are still not integrated into the central HIS which adds significantly to staff transaction costs;

- There is no system for facility and staff housing planning, development, and maintenance;
- When a different person takes over the charge of a program or organizational unit, unless there is international assistance with a tightly defined work plan, what the program or unit does and how it does it may completely change – not being dependent on any past system.
- There has been organizational proliferation at the central level for years.
  - As above, this has been driven by various substantive disease or health issues;
  - At the service delivery level in the Provinces the organizational structure is designed around a simple service facility/"levels of care" hierarchy
  - Interacting these two structures, which do need to interact, for effective services creates serious mismatches.
- Human resource planning, development and management are also very unsystematic and these three core functions seem generally un-integrated.
  - The MHMS is not understaffed – a 2006 sample time and motion study in a Province conclude it was overstaffed by 1/3. Recent overall analysis of national and provincial demand/supply levels suggest that doctors at the national level could see almost 3 times as many inpatients and 6 times as many outpatients with existing staff. National level nurses could see about 3 times more outpatients, but inpatient workloads are about balanced with staff. Due to the HIS not being able to provide aggregate data it is not clear what the demand side is for Provinces. However, in general doctors in Provinces are overworked, particularly as they also have to carry out the PHD tasks. Provincial nurses could probably provide service and care to at least double the current demand (at an average of 2 OPD visits per capita).
  - This highlights the need to produce a comprehensive HR plan which includes all cadres;
  - This needs to then be linked to a HR development plan also for all cadres – currently both pre-service and in-service training is very ad hoc and often driven by international funding rather than actual priority knowledge and skill needs.
  - There are no significant consequences for good or poor performance. While there are SIG-wide disciplinary procedures, these are usually not implemented unless a staff member commits very serious infractions. Conversely, there is no tangible merit-based reward system, particularly for rewards within current positions.
- Because the MHMS has generally been locked in the 'medical model" approach to the delivery of health service since independence, there are many distortions in funding allocations and managerial priorities.
  - While both the communities and provincial staff recognize the need for improved health promotion and it is the most cost-effective health intervention possible overall, it has been allocated about 1% of the budget for many years and in the past has been accorded a low managerial priority
  - Community-based and multi-sector health interventions that try to minimize the determinants of disease have been allocated next to no funding and also have never been a high managerial priority.

Therefore, as above, currently it can be concluded that the **majority of the problems in providing better health services and improving health status are organizational and managerial**, not substantive or financial. This NHSP below tries to address these needs.

### Values – more complete explanation

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#### **Comprehensiveness –**

The comprehensiveness is a value which requires that the “menu” of services provided should be a logically decided related to levels of care (primary, secondary, and tertiary) and the nation’s referral system. This menu should be periodically (at least every 5 years) reviewed and re-decided as needs, health resources, and public health and medical technologies change. This menu and categorization needs to be very country specific. For example, what is secondary care in some countries is tertiary care in others. Cardiac by-pass surgery in the US is now largely secondary care – most countries it is tertiary care.

#### **Universality –**

The universality value defines that all residents of the country must be entitled to the health services provided by the nation’s health sector on uniform terms and conditions. The national or provincial government may require that residents register with their local health organisation or health plan to establish entitlement.

#### **Equity/Accessibility –**

While comprehensiveness and universality may be adopted as values, these do not ensure that every citizen has equal or the same ease of access. The intent of the accessibility value is to ensure the citizens in a country have reasonable access to hospital, medical and surgical-dental services on uniform terms and conditions, un-precluded or unimpeded, either directly or indirectly, by charges (user charges or extra-billing) or other means (e.g., discrimination on the basis of age, gender, ethnicity, health status, or financial circumstances).

#### **Quality and Caring Services –**

The intent of the quality value is to ensure that service providers will be focus on trying to implement all their patient services and support services with the highest possible quality. Many countries have tried to implement quality assurance (QA) systems in order to monitor and improve service quality. These efforts are positive; however, they have to be implemented with reason. These systems must recognize that quality is a very relative concept. “Scoring” what is good quality in one setting may be very different for another setting implementing exactly the same type of service or procedure. Highly related to “technical” quality are the more subjective aspects of caring services, but are, nonetheless a critical aspect of overall service quality. It is the manner of provider-patient/client human interaction by which services are delivered – whether the services are delivered with human care and compassion. It has been scientifically documented by differences in clinical outcomes that without expressions of concern and care, many services are less effective – often significantly less effective. This is due to mind-body connections and differing levels of patient compliance in therapy procedures depending on how they feel they are being treated.

#### **Effectiveness with optimal efficiency –**

Effectiveness can be examined at macro and micro levels. Sector macro effectiveness can be analyzed by examining how health spending compares with the value (economic) of that improved health status (reduction in job absenteeism, etc.). Also sector macro effectiveness can be assessed and analyzed by the multi-year trends in (% of annual incremental change) in health status. At a micro level (service delivery) the same effectiveness concepts and analysis apply – are the outcomes of a single disease or illness improving over time? One example is the analysis of whether the most cost-effective interventions are being implemented to achieve improved health with groups of people with the same diagnosis. Efficiency can be examined at two levels – macro or overall health sector efficiency and micro level or services operational

level efficiency. At the macro level efficiency analysis can be done for example by the “natural experiments” of comparing countries’ total health costs in PPP or international dollars to their levels of disease burden. A macro level efficiency perspective can also analyze how much of GDP is spent on health; what how much change in health status is “created” compared to other countries. There are many aspects and analyses that can be done related to micro efficiency. One example is that it can be analyzed by relating whether health services and support services are “packaged” optimally – with the least overlap and duplication of functions and operations.

#### **Responsiveness –**

To what extent are services and functions of the health sector responsive to and adapt appropriately to their environment. This includes, among others, services response to client or patient needs (proximity of services, opening hours, average waiting times, etc.). It also can be considered as bio- and medical technology responsiveness. That is, are the “menus” of services and the technologies that support them optimal for the socio-economic context of the country? As bio-medical technologies and practice protocols related to them have become more and more complex and expensive, some countries have begun technology assessment centers to support the difficult decision making process of which technologies to adopt and when. MHMS may need to consider introduction of more technology to some provinces.

#### **Transparency, Openness, Public Trust**

To what extent does the public or the majority of the public truly understand what the issues in the health sector are, and to what extent does the public have trust what they are being told by the stewards and service providers of the health sector. It should be understood that this is a “two-way” street in that the public must also do their part and make serious efforts to learn and understand health sector issues in an objective manner.

### [Operating Principles: more complete explanation](#)

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#### **Concept and Utility of Operating Principles -**

This menu of principles are somewhat similar to values, but relate more to characteristics of **how the health sector functions and operates**, rather than overall sector characteristics. These principles also tend to define and describe more tangible features of sector functions and operations.

#### **Stewardship & Publicly Administered**

This principle accepts that the public’s good health status and the health services that facilitate improving health status are a “public good.” In addition, the needs and issues related to health are probably more complex than any other sector. As a result, health requires proactive stewardship and governance by a group(s) of comprised of people who are very knowledgeable regarding all the very complex issues and trade-offs in health as well as being public-spirited persons. Every government has the ethical responsibility to ensure the health sector functions in the optimal public interest whether or not the government provides any services itself or not. The authority of this stewardship group(s) (whether within or outside formal government) needs to ensure that the right things are done, in the right way, at least cost. Often such a group is constituted by the government, but not internal to it, like a national health board. Therefore, stewardship and public administered does not necessarily imply that the health sector and the health care services themselves need to be operated and administered directly by the government or formal public sector, but at least the sector and services delivered should be by organizations overseen and regulated by a public authority. Directly or indirectly all service providers should be accountable to the government for their



decision making on the specific benefits and levels of services, and their records and accounts should be open to public audit if they receive any public funds.

### Public Health – Medical Model Balance

The definitions and distinctions between the “Public Health” and the “Medical Model” are outlined in the table below: Every country’s health sector has some of each one of these two models that define and “drive” the sector’s major and minor decision making. The operating principle here (and the related decisions made) is not that one or the other completely dominates all decisions – it is the relative balance between the two. This “balance” primarily implies the balance of sector leaders and managers will apply mostly the public health model concepts and requirements in making most of their service operation decisions and priorities among them.

#### Medical Model

#### Public Health Model

<b>Aim</b> is to maximize the <b>medical interests of individual patients</b>	<b>Aim</b> is to maximize the <b>health status of the population</b>
Content of work is provision of personal health services (e.g. surgery, acute inpatient care, drug therapy, etc.)	Work is concerned with community health (e.g. water, sanitation, and air pollution control, health education, EPI, creation of health service systems)
Practitioner is concerned with risk-benefit calculus for individual patients	Practitioner is concerned with relative cost-effectiveness of different interventions or strategies
Practitioner's primary moral obligation is to individual patients	Practitioner is obliged to think in terms of good for the most people
Practitioner has little or <b>no concern with overall pattern of allocation</b> of societal resources	Practitioner is obliged to think in terms of <b>how best to allocate resources among society</b> (for optimal macro benefit)
The ideal is the provision of State-of-the-art services	Appropriate technology is the ideal, which may not be state-of-the-art
Patient-specific facts are relevant for decision making	Population-based measures of need are of primary importance in decision making
<b>Outcomes</b> are measured on terms of changes in <b>individual patients</b>	<b>Outcomes</b> are measured in terms of <b>community or population health status changes</b>

### Political Acceptability & Harmony –

Those who are the stewards of the health sector will try to maintain optimal political support, but at the national, provincial levels, and community levels. They will try to ensure that health sector issues are regularly reviewed by requisite political bodies to ensure understanding and acceptability, and the requisite political decision making is undertaken. This includes promoting and enacting requisite health-related legislation. Further it implies that this body of legislation will be kept up-to-date and they will be translated into reality in civil society through appropriate regulations, enforcement actions, and the judicial and penal systems. In addition to the proactive efforts to engage political and legislative relationships with the health sector, efforts will be made to try to ensure that the health sector/system and services are also not abused politically.

### Professionalism –

Beginning with the health sector’s top level policy makers and managers to the nurse aid, the persons filling these positions will know what their job tasks are; they will try their best to keep up-to-date their knowledge and skills related to each task; they will be aware which of their job tasks make the most difference in improving the health status of the public they serve (therefore what their job task priorities should be); and they will make every effort to work in harmony (as a team member in teamwork spirit) with other health service providers with whom



they regularly work. It is recognized that keeping up-to-date in the health sector has become very, very difficult, complex, and expensive. In the US alone there are over 700,000 new medical and health publications every year, and practice and procedure protocols are regularly being up-dated. In some countries continuing medical education (CME) has become a requirement to maintain practice licensing to help ensure practitioners are up-to-date, also in some countries specialist have to re-sit their specialist exams periodically (usually every 10 years) to maintain their specialist certification for the same reason. Professional associations can be quite helpful in defining professional standards; changes in job tasks; job-related knowledge and skills; sharing best practices; researching issues within the profession; organizing members of the profession to protect them from abuse by employing organizations (union type functions), as well as helping define teamwork guidelines.

### Annex III

No.	Substantive Programs	Do New	Do More	Do Better	Diversify	Do Less	Reassign/ Collaborate
1	The health sector will reduce individual & family behavior-related risk factors		8	5	2		6
2	The health sector will reduce priority disease burden causes which are feasible to reduce		3	7	2		3
4	The health sector will reduce environmental risk factors	1	3	4			3
4	The health sector will reduce the most important medical condition risk factors		4	7	1		2
5	The health sector will reduce service delivery conditions risk factors		3	7			3
6	The health sector will gradually move toward the “packaging” of health services with “levels or care” as the dominant approach	3	4	3	1		2
7	The health sector will improve the health status of priority age & gender population groups			5	1		4
8	The health sector will reduce other lower priority causes of disease burden		3	4	2		3
	<b>Totals</b>	<b>4</b>	<b>28</b>	<b>42</b>	<b>9</b>		<b>26</b>

No.	Substantive Programs	Do New	Do More	Do Better	Diversify	Do Less	Reassign/ Collaborate
1	Health Promotion		1	1			1
2	Vector Borne Disease Program			1			
3	Child Health Program (EPI)			1			
4	Environmental Health Program		1	1			
5	TB & Leprosy Program			1			
6	Reproductive Health Program		1	1			
7	HIV/STI Program			1			1
8	NCD Program		1	1			1
9	Social Welfare Program			1			1
10	Community-Based Rehabilitation			1			
11	NRH			1			
12	Provincial Hospitals			1			
13	Provincial Health Services			1			
14	Mental Health Program			1			1
	<b>Totals</b>		4	14			5

When a Program is not given any score of “Do more,” this does not imply there would be absolutely “no expansion” of the program or service at all; rather it implies strategically that the program or service would not have a major expansion. One practical definition of strategic change would be that the Program or services related to the Program would expand faster than population growth – about 2.5% per year.

Organisational Policies	Do New	Do More	Do Better	Diversify	Do Less	Reassign/ Collaborate
Integrate & improve performance of HR systems		4	1			2
Integrate & improve performance of Facility & Housing systems		8	4			1
Improve performance of Financial systems		4	4			1
Decentralize decision making to Provinces & cooperate with Provincial Governments	5	3	3	1		2
Integrate & improve performance of Procurement systems		2	4			
Create a concerted Organisation & Management Development program		4	4	1		1
Maintain the Publicly owned & managed/Publicly financed health system	1	1	4		2	
Improve performance of Planning & Management systems			7			
Develop & better integrate Information & Communication Technology (ICT) systems	1	4	4			
Collaborate with Central agencies; other Ministries; NGO/FBOs, & Communities & (CBOs) and traditional healers	1	3	5			
Improve Relationships with DPs via SWAp	1	4	4			1
Adopt & evolve toward a Functional Organisational Structure for the MHMS	6		1		1	
Promote improve alliance with regional & international Professional Organisations	1		3			2
Develop expanded Legal capacity within MHMS	3	2	3			3
<b>Totals</b>	<b>19</b>	<b>39</b>	<b>51</b>	<b>2</b>	<b>3</b>	<b>13</b>



<b>Organisational Policies</b>	<b>Do New</b>	<b>Do More</b>	<b>Do Better</b>	<b>Diversify</b>	<b>Do Less</b>	<b>Reassign/ Collaborate</b>
Policy & Planning			<b>1</b>			<b>1</b>
Financial Management & Finance			<b>1</b>			
Procurement			<b>1</b>			
Infrastructure			<b>1</b>			<b>1</b>
Information Technology		<b>1</b>	<b>1</b>			
National Medical Stores			<b>1</b>			
Human Resources		<b>1</b>	<b>1</b>			
Human Resource Development		<b>1</b>	<b>1</b>			<b>1</b>
HIS			<b>1</b>			
Nursing Administration			<b>1</b>			
Executive			<b>1</b>			
<b>Totals</b>		<b>3</b>	<b>11</b>			<b>3</b>