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Volume 2 (Part B) | Reference Data and National Health Profile



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# Chapter 16

**Provincial Profiles** 



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**Chapter 16 Provincial Profiles** 



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**Chapter 16 Provincial Profiles** 

### Volume 2 (Part B) | Reference Data and National Health Profile





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Population served 2010:	212,109
Number of health centres:	40
Number of aid posts:	272
Percentage of aid posts closed in 2008:	18%
Doctors per 100,000:	5.4
HEOs per 100,000:	3.4
Nurses per 100,000:	62.8

Rural health staff	2003	2004	2005	2006	2007	2008
Doctors	5	5	5	5	7	4
HEOS	9	8	16	14	7	10
Nursing officers	101	82	118	112	97	96
CHWs at health centres	131	154	159	165	156	194
Staff at aid posts	144	130	136	61	113	75
Clinical supervisory visits	39%	15%	29%	41%	18%	46%
Equipment and supplies	2003	2004	2005	2006	2007	2008
Transport	22%	17%	17%	17%	18%	44%
Communications	88%	95%	93%	90%	93%	93%
Refrigerator	54%	93%	85%	37%	63%	27%
Standard Treatment Manuals	100%	100%	100%	90%	55%	88%
Health centres with oxygen	41%	22%	15%	61%	23%	63%
Monthly key supplies available	73%	77%	72%	71%	67%	72%
Health services	2003	2004	2005	2006	2007	2008
Family planning use		187	173	150	154	154
Antenatal coverage	47%	51%	50%	46%	47%	45%
Deliveries supervised	21%	21%	22%	20%	22%	21%
Triple antigen coverage	63%	52%	63%	57%	54%	45%
Measles immunisation	44%	42%	52%	45%	44%	39%
Monthly reporting rate	92%	94%	93%	96%	96%	97%
Health status	2003	2004	2005	2006	2007	2008
Children <5 severely malnourished	1.80%	2.31%	2.63%	1.79%	2.16%	2.44%
Deliveries low birth weight	7.70%	8.76%	7.01%	8.34%	6.09%	6.42%

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# **Equipment and Supplies**





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#### % of facilities with oxygen



% of	faciliti	es with	treatm	ent m	anuals	
100%						
90%				-		_
80%						
70%						
60%						
50%						
40%						
30%						
20%						
10%						
0%	2002	2004	2005	2006	2007	2008

### **Health Services**

Antenatal visit coverage (1st visit)







### Proportion of deliveries in facility



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#### Measles immunisation coverage



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Chapter 16 Provincial Profiles — 16.1 Western Province

# Leading Causes of Morbidity and Mortality

Outpatients per 1000 p.a. (2007–2008)		% c	% of all admissions (2008)			% of all deaths (2008)			
1	Malaria	317	1	Normal delivery	40.00%	1	Cardiovascular	11.91%	
2	Skin disease	195	2	Accidents and injury	10.73%	2	Obstetric and maternal conditions	12.50%	
3	Simple cough	132	3	Obstetric and maternal conditions	6.18%	3	Tuberculosis	10.73%	
4	Diarrhoea	82	4	Diarrhoea and enteric	5.60%	4	Accidents and injury	8.84%	
5	Other respiratory	76	5	Pneumonia/ARI	5.00%	5	Pneumonia/ARI	8.25%	
6	Pneumonia	57	6	Perinatal conditions – CA	4.20%	6	Diarrhoea and enteric	7.08%	
7	Accidents	48	7	Malaria and other vector-borne	4.01%	7	Chronic respiratory	5.31%	
8	Ear infection	29	8	Other gastro-intestinal	3.72%	8	Malaria and other vector-borne	4.72%	
9	Eye infection	26	9	Tuberculosis	2.90%	9	Other gastro-intestinal	5.31%	
10	Genital conditions	4	10	Other genito-urinary	2.80%	10	Perinatal conditions – CA	5.31%	
% o	f all outpatients	65.40%	% of	f all admissions	85.14%	% of	all deaths	79.96%	

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Chapter 16 Provincial Profiles — 16.1 Western Province

# **Monthly Admissions to Health Facilities**



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Chapter 16 Provincial Profiles — 16.1 Western Province











2006 2007 2008 2009 2001 2002 200 **S** 

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Chapter 16 Provincial Profiles — 16.1 Western Province

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### Volume 2 (Part B) | Reference Data and National Health Profile

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Population served 2010:	138,178
Number of health centres:	20
Number of aid posts:	81
Percentage of aid posts closed in 2008:	30%
Doctors per 100,000:	7.4
HEOs per 100,000:	7.4
Nurses per 100,000:	46.8

Rural health staff	2003	2004	2005	2006	2007	2008
Doctors	1	1	0	0	3	1
HEOs	11	1	3	3	7	6
Nursing officers	54	35	31	46	51	49
CHWs at health centres	91	64	78	110	110	90
Staff at aid posts	61	41	56	40	23	57
Clinical supervisory visits	5%	13%	31%	26%	14%	40%
Equipment and supplies	2003	2004	2005	2006	2007	2008
Transport	45%	53%	38%	32%	48%	50%
Communications	60%	93%	94%	100%	86%	85%
Refrigerator	95%	87%	100%	84%	90%	80%
Standard Treatment Manuals	75%	87%	100%	68%	86%	90%
Health centres with oxygen	50%	53%	69%	53%	38%	75%
Monthly key supplies available	74%	66%	65%	56%	57%	46%
Health services	2003	2004	2005	2006	2007	2008
Family planning use		187	225	289	271	235
Antenatal coverage	43%	44%	50%	54%	54%	46%
Deliveries supervised	28%	23%	27%	29%	31%	24%
Triple antigen coverage	50%	34%	29%	51%	48%	31%
Measles immunisation	45%	41%	32%	44%	44%	27%
Monthly reporting rate	85%	68%	98%	100%	100%	84%
Health status	2003	2004	2005	2006	2007	2008
Children <5 severely malnourished	4.26%	4.43%	3.94%	4.62%	3.58%	3.35%
Deliveries low birth weight	8.70%	8.52%	8.60%	10.27%	11.17%	9.71%

# **Equipment and Supplies**





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% of facilities with oxygen



90%		-	-	-	_	
80%	_					
70%				-		
60%	1 112					
50%						
40%					1225	
30%						
20%			1.11			
10%						
0%	2003	2004	2005	2005	2007	2008

### **Health Services**











20%

10%



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Chapter 16 Provincial Profiles — 16.2 Gulf Province

# Leading Causes of Morbidity and Mortality

Outpatients per 1000 p.a. (2007–2008)					% c	% of all deaths (2008)		
1	Malaria	436	1	Normal delivery	24.82%	1	Sepsis	14.81%
2	Skin disease	171	2	Accidents and injury	10.54%	2	Perinatal conditions – CA	12.19%
3	Simple cough	107	3	Tuberculosis	9.71%	3	Tuberculosis	11.28%
4	Pneumonia	65	4	Pneumonia/ARI	7.99%	4	Pneumonia/ARI	10.36%
5	Diarrhoea	63	5	Malaria and other vector-borne	6.24%	5	Malaria and other vector-borne	6.95%
6	Other respiratory	56	6	Diarrhoea and enteric	6.21%	6	Chronic respiratory	6.04%
7	Accidents	38	7	Obstetric and maternal conditions	6.04%	7	Diarrhoea and enteric	6.04%
8	Ear infection	19	8	Perinatal conditions – CA	4.67%	8	Other non- communicable	7.86%
9	Eye infection	18	9	Other gastro-intestinal	3.12%	9	Cardiovascular	4.33%
1 0	Anaemia	5	10	Chronic respiratory	2.37%	10	Obstetric and maternal conditions	4.33%
% (	of all outpatients	74.20%	% 0	f all admissions	81.71%	% of	f all deaths	84.19%

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Chapter 16 Provincial Profiles — 16.2 Gulf Province

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# **Monthly Admissions to Health Facilities**



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Chapter 16 Provincial Profiles — 16.2 Gulf Province

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Chapter 16 Provincial Profiles — 16.2 Gulf Province

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### Volume 2 (Part B) | Reference Data and National Health Profile

**16.3 Central Province** 





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Population served 2010:	230,958
Number of health centres:	33
Number of aid posts:	85
Percentage of aid posts closed in 2008:	6%
Doctors per 100,000:	0
HEOs per 100,000:	4.9
Nurses per 100,000:	25.2

Rural health staff	2003	2004	2005	2006	2007	2008
Doctors	0	1	1	0	1	1
HEOs	6	3	5	4	10	6
Nursing officers	49	51	57	48	45	44
CHWs at health centres	135	128	136	139	141	143
Staff at aid posts	58	53	53	52	73	70
Clinical supervisory visits	39%	15%	29%	41%	18%	46%
Equipment and supplies	2003	2004	2005	2006	2007	2008
Transport	22%	17%	17%	17%	18%	44%
Communications	88%	95%	93%	90%	93%	93%
Refrigerator	54%	93%	85%	37%	63%	27%
Standard Treatment Manuals	100%	100%	100%	90%	55%	88%
Health centres with oxygen	41%	22%	15%	61%	23%	63%
Monthly key supplies available	56%	51%	47%	53%	44%	50%
Health services	2003	2004	2005	2006	2007	2008
Family planning use		187	173	150	154	154
Antenatal coverage	47%	51%	50%	46%	47%	45%
Deliveries supervised	21%	21%	22%	20%	22%	21%
Triple antigen coverage	63%	52%	63%	57%	54%	45%
Measles immunisation	44%	42%	52%	45%	44%	39%
Monthly reporting rate	92%	94%	93%	96%	96%	97%
Health status	2003	2004	2005	2006	2007	2008
Children <5 severely malnourished	1.80%	2.31%	2.63%	1.79%	2.16%	2.44%
Deliveries low birth weight	7.70%	8.76%	7.01%	8.34%	6.09%	6.42%

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# **Equipment and Supplies**



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0%				
0%	-	-	-	
10%				
0%6				
10%				
0%				
0%				
10%				
0%				1000
0%				

# **Health Services**







### Proportion of deliveries in facility



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Chapter 16 Provincial Profiles — 16.3 Central Province

Outpatients per 1000 p.a. (2007–2008)		% o	% of all admissions (2008)			% of all deaths (2008)		
1	Malaria	279	1	Accidents and injury	23.48%	1	Pneumonia/ARI	16.14%
2	Skin disease	105	2	Malaria and other vector-borne	17.32%	2	Accidents and injury	11.32%
3	Simple cough	83	3	Pneumonia/ARI	14.48%	3	Sepsis	10.48%
4	Pneumonia	57	4	Diarrhoea and enteric	5.40%	4	Malaria and other vector-borne	9.43%
5	Diarrhoea	37	5	Chronic respiratory	4.85%	5	Chronic respiratory	8.60%
6	Other respiratory	33	6	Mental health disorder	4.30%	6	Tuberculosis	8.60%
7	Accidents	23	7	Obstetric and maternal conditions	3.75%	7	Perinatal conditions – CA	6.71%
8	Eye infection	13	8	Other gastro-intestinal	3.75%	8	Cardiovascular	5.66%
9	Ear infection	12	9	Tuberculosis	3.07%	9	Anaemia	3.77%
10	Genital conditions	2	10	Perinatal conditions – CA	3.25%	10	Obstetric and maternal conditions	3.77%
% of all outpatients 80.3%		% of	fall admissions	83.65%	% of	% of all deaths		





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Chapter 16 Provincial Profiles — 16.3 Central Province





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Other respiratory



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Tuberculosis



















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Chapter 16 Provincial Profiles — 16.3 Central Province

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# **16.4 National Capital District**

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Population served 2010:	361,995
Number of health centres:	16
Number of aid posts:	0
Percentage of aid posts closed in 2008:	0
Doctors per 100,000:	24.3
HEOs per 100,000:	4.0
Nurses per 100,000:	135.4

Rural health staff	2003	2004	2005	2006	2007	2008
Doctors	6	1	6	4	6	9
HEOs	2	2	3	3	3	4
Nursing officers	48	38	57	56	73	47
CHWs at health centres	38	23	51	40	62	49
Staff at aid posts	5	0	0 36 0		38	24
Clinical supervisory visits	50%	67%	60%	10%	31%	43%
Equipment and supplies	2003	2004	2005	2006	2007	2008
Transport	50%	11%	30%	40%	63%	50%
Communications	63%	89%	50%	70%	63%	57%
Refrigerator	88%	33%	80%	80%	75%	79%
Standard Treatment Manuals	88%	0%	90%	80%	63%	79%
Health centres with oxygen	75%	78%	80%	90%	75%	79%
Monthly key supplies available	56%	75%	65%	69%	72%	49%
Health services	2003	2004	2005	2006	2007	2008
Family planning use		473	381	391	448	455
Antenatal coverage	90%	96%	70%	87%	91%	91%
Deliveries supervised	105%	102%	97%	97%	97%	93%
Triple antigen coverage	123%	106%	78%	111%	113%	98%
Measles immunisation	90%	80%	54%	72%	76%	82%
Monthly reporting rate	82%	81%	69%	82%	82%	94%
Health status	2003	2004	2005	2006	2007	2008
Children <5 severely malnourished	0.91%	1.01%	0.68%	0.71%	0.64%	0.51%
Deliveries low birth weight	20.70%	10.80%	13.80%	13.50%	12.00%	13.50%

# **Equipment and Supplies**





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# **Health Services**



Triple antigen coverage 100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% 2003 2004 2005 2006 2007 2008

Proportion of deliveries in facility







Chapter 16 Provincial Profiles — 16.4 National Capital District

#### % of all deaths (2008) Outpatients per 1000 p.a. % of all admissions (2008) (2007-2008) 1 Malaria 202 1 Normal delivery 31.70% Tuberculosis 15.07% 1 2 Pneumonia 88 2 Accidents and injury 14.03% 2 Sepsis 10.92% 3 Skin disease 3 Tuberculosis 3 Cancer 82 8.11% 9.51% 4 Simple cough 67 4 Obstetric and maternal 6.40% 4 Cardiovascular 9.11% conditions 5 Other respiratory 58 5 Other gastro-intestinal 6.00% 5 HIV and other STI 6.76% 6 Diarrhoea 6 Skin disease 6 51 3.30% Other non-6.36% communicable 7 Accidents 38 7 Other genito-urinary 7 Neurological 2.88% 5.76% 8 Ear infection 18 8 Other non-2.69% 8 Other gastro-intestinal 4.76% communicable 9 Eye infection 13 9 Pneumonia/ARI 2.57% 9 Other genito-urinary 4.76% 10 Genital conditions 7 10 Cardiovascular 2.55% 10 Malaria and other 4.15% vector-borne % of all outpatients 73.0% % of all admissions 80.23% % of all deaths 77.16%

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**Leading Causes of Morbidity and Mortality** 





# **Monthly Admissions to Health Facilities**



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Chapter 16 Provincial Profiles — 16.4 National Capital District



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Chapter 16 Provincial Profiles — 16.4 National Capital District

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Chapter 16 Provincial Profiles — 16.4 National Capital District

# **16.5 Milne Bay Province**





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Population served 2010:	269,347
Number of health centres:	41
Number of aid posts:	147
Percentage of aid posts closed in 2008:	22%
Doctors per 100,000:	7.6
HEOs per 100,000:	12.6
Nurses per 100,000:	90.2

Rural health staff	2003	2004	2005	2006	2007	2008
Doctors	1	1	2	0	0	0
HEOs	10	13	15	17	18	18
Nursing officers	132	119	122	125	131	132
CHWs at health centres	173	153	174	183	179	175
Staff at aid posts	106	111	113	113 140		128
Clinical supervisory visits	39%	39%	41%	24%	24%	50%
Equipment and supplies	2003	2004	2005	2006	2007	2008
Transport	68%	63%	68%	76%	73%	85%
Communications	100%	95%	95%	93%	85%	85%
Refrigerator	93%	98%	100%	100%	95%	98%
Standard Treatment Manuals	93%	95%	95%	90%	78%	95%
Health centres with oxygen	95%	80%	80%	68%	71%	75%
Monthly key supplies available	57%	55%	50%	58%	39%	39%
Health services	2003	2004	2005	2006	2007	2008
Family planning use		505	477	525	560	573
Antenatal coverage	73%	69%	74%	72%	77%	75%
Deliveries supervised	42%	39%	41%	44%	43%	44%
Triple antigen coverage	99%	76%	90%	107%	95%	94%
Measles immunisation	78%	67%	72%	85%	83%	84%
Monthly reporting rate	100%	100%	100%	100%	100%	100%
Health status	2003	2004	2005	2006	2007	2008
Children <5 severely malnourished	0.90%	1.04%	1.02%	0.92%	0.74%	0.46%
Deliveries low birth weight	18.20%	14.12%	18.12%	16.58%	15.95%	13.40%

# **Equipment and Supplies**



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### **Health Services**







#### Proportion of deliveries in facility



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#### Measles immunisation coverage

Chapter 16 Provincial Profiles — 16.5 Milne Bay Province

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Outpatients per 1000 p.a. (2007–2008)		% 0	% of all admissions (2008)			% of all deaths (2008)		
1	Malaria	399	1	Normal delivery	23.83%	1	Perinatal conditions – CA	15.47%
2	Skin disease	125	2	Malaria and other vector-borne	13.17%	2	Sepsis	10.45%
3	Pneumonia	51	3	Pneumonia/ARI	10.11%	3	Malaria and other vector-borne	10.12%
4	Simple cough	45	4	Obstetric and maternal conditions	8.50%	4	Pneumonia/ARI	9.47%
5	Accidents	41	5	Accidents and injury	7.90%	5	Tuberculosis	6.96%
6	Other respiratory	37	6	Perinatal conditions – CA	7.39%	6	Other gastro-intestinal	6.32%
7	Ear infection	27	7	Other gastro-intestinal	3.90%	7	Anaemia – Haematology	5.34%
8	Diarrhoea	17	8	Diarrhoea and enteric	3.61%	8	Chronic respiratory	4.78%
9	Eye infection	14	9	Skin diseases	2.96%	9	Cancer	4.45%
10	Genital conditions	3	10	URTI/influenza/other	2.57%	10	Cardiovascular	4.13%
% of	f all outpatients	73.3%	% of	fall admissions	83.94%	% of	f all deaths	77.49%







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Chapter 16 Provincial Profiles — 16.5 Milne Bay Province

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# **Monthly Admissions to Health Facilities**



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Chapter 16 Provincial Profiles — 16.5 Milne Bay Province

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Population served 2010:	173,689
Number of health centres:	19
Number of aid posts:	105
Percentage of aid posts closed in 2008:	43%
Doctors per 100,000:	7.7
HEOs per 100,000:	10.1
Nurses per 100,000:	40.8

Rural health staff	2003	2004	2005	2006	2007	2008
Doctors	0	0	0	0	0	0
HEOs	3	4	5	6	6	6
Nursing officers	25	41	33	38	44	28
CHWs at health centres	67	83	66	80	72	78
Staff at aid posts	51	54	48	54	52	46
Clinical supervisory visits	7%	11%	26%	37%	26%	32%
Equipment and supplies	2003	2004	2005	2006	2007	2008
Transport	33%	33%	42%	21%	26%	26%
Communications	67%	94%	95%	100%	100%	100%
Refrigerator	80%	83%	79%	84%	79%	74%
Standard Treatment Manuals	93%	94%	74%	95%	89%	84%
Health centres with oxygen	80%	83%	68%	74%	74%	42%
Monthly key supplies available	39%	36%	41%	53%	52%	52%
Health services	2003	2004	2005	2006	2007	2008
Family planning use		296	286	257	266	306
Antenatal coverage	54%	63%	58%	64%	62%	61%
Deliveries supervised	30%	31%	8%	26%	35%	36%
Triple antigen coverage	56%	47%	53%	67%	67%	56%
Measles immunisation	37%	30%	39%	42%	45%	51%
Monthly reporting rate	82%	100%	96%	91%	91%	99%
Health status	2003	2004	2005	2006	2007	2008
Children <5 severely malnourished	2.02%	2.07%	3.07%	1.75%	2.38%	1.04%
Deliveries low birth weight	11.30%	13.49%	6.02%	9.03%	13.99%	10.87%

#### **Equipment and Supplies**





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#### **Health Services**

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Chapter 16 Provincial Profiles — 16.6 Oro Province

Outpatients per 1000 p.a. (2007–2008)		% 0	% of all admissions (2008)			% of all deaths (2008)		
1	Malaria	372	1	Normal delivery	30.58%	1	Tuberculosis	15.54%
2	Skin disease	134	2	Obstetric and maternal conditions	9.27%	2	Perinatal conditions – CA	15.06%
3	Simple cough	120	3	Pneumonia/ARI	9.04%	3	Malaria and other vector born	10.26%
4	Pneumonia	60	4	Malaria and other vector-borne	8.85%	4	Sepsis	8.73%
5	Other respiratory	44	5	Accidents and injury	6.68%	5	Chronic respiratory	7.77%
6	Diarrhoea	41	6	Diarrhoea and enteric	5.94%	6	Pneumonia/ARI	7.29%
7	Accidents	31	7	Perinatal conditions – CA	4.81%	7	Cardiovascular	5.37%
8	Eye infection	18	8	Tuberculosis	4.28%	8	Cancer	3.93%
9	Ear infection	12	9	Other gastro-intestinal	2.81%	9	Diarrhoea and enteric	3.93%
10	Malnutrition	4	10	Anaemia – Haematology	2.59%	10	Anaemia – Haematology	2.88%
% о	f all outpatients	75.2%	% of	f all admissions	84.85%	% of	all deaths	80.76%







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### **Monthly Admissions to Health Facilities**



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Chapter 16 Provincial Profiles — 16.6 Oro Province

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## **16.7 Southern Highlands Province**

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Population served 2010:	824,296
Number of health centres:	66
Number of aid posts:	224
Percentage of aid posts closed in 2008:	27%
Doctors per 100,000:	1.4
HEOs per 100,000:	3.4
Nurses per 100,000:	41.1

Rural health staff	2003	2004	2005	2006	2007	2008
Doctors	2	2	2	0	3	1
HEOs	8	10	30	8	12	9
Nursing officers	190	153	165	165	152	153
CHWs at health centres	249	248	234	238	227	256
Staff at aid posts	202	145	172	130	153	167
Clinical supervisory visits	8%	22%	11%	8%	6%	8%
Equipment and supplies	2003	2004	2005	2006	2007	2008
Transport	24%	14%	23%	27%	21%	30%
Communications	32%	31%	41%	68%	63%	59%
Refrigerator	84%	69%	86%	79%	82%	86%
Standard Treatment Manuals	77%	73%	85%	86%	72%	77%
Health centres with oxygen	40%	24%	32%	32%	24%	33%
Monthly key supplies available	58%	58%	60%	63%	59%	45%
Health services	2003	2004	2005	2006	2007	2008
Family planning use		120	146	143	148	148
Antenatal coverage	28%	33%	33%	36%	34%	34%
Deliveries supervised	12%	14%	15%	16%	16%	15%
Triple antigen coverage	38%	40%	37%	83%	45%	47%
Measles immunisation	32%	38%	34%	70%	38%	46%
Monthly reporting rate	70%	73%	80%	90%	90%	91%
Health status	2003	2004	2005	2006	2007	2008
Children <5 severely malnourished	1.31%	1.69%	1.36%	1.60%	1.01%	1.31%
Deliveries low birth weight	12.00%	5.61%	6.40%	8.26%	6.72%	9.96%

#### **Equipment and Supplies**





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#### % of facilities with refrigerator 90% 80% 70% 60% 50% 40% 30% 20% 10%

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#### **Health Services**



Triple antigen coverage



#### Proportion of deliveries in facility







Chapter 16 Provincial Profiles — 16.7 Southern Highlands Province

	tpatients per 1000 p 07–2008)	o.a.	% <b>c</b>	% of all admissions (2008)			% of all deaths (2008)		
1	Malaria	133	1	Pneumonia/ARI	20.25%	1	Pneumonia/ARI	21.88%	
2	Skin disease	64	2	Normal delivery	19.40%	2	Perinatal conditions – CA	13.35%	
3	Simple cough	62	3	Malaria and other vector-borne	12.38%	3	Diarrhoea and enteric	10.72%	
4	Pneumonia	52	4	Accidents and injury	8.80%	4	Sepsis	7.88%	
5	Diarrhoea	34	5	Diarrhoea and enteric	8.53%	5	Malaria and other vector-borne	7.44%	
6	Accidents	21	6	Perinatal conditions – CA	5.06%	6	Anaemia – Haematology	6.13%	
7	Other respiratory	20	7	Skin diseases	3.28%	7	Tuberculosis	5.69%	
8	Ear infection	12	8	Obstetric and maternal conditions	3.09%	8	Other non- communicable	4.81%	
9	Eye infection	11	9	Orthopaedic – rheumatology	2.35%	9	Chronic respiratory	4.60%	
10	Genital condition	7	10	Other non - communicable	2.09%	10	Cardiovascular	2.84%	
% oʻ	f all outpatients	78.6%	% 0	f all admissions	85.23%	% 0	f all deaths	85.34%	





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#### Leading Causes of Morbidity and Mortality

Chapter 16 Provincial Profiles — 16.7 Southern Highlands Province

### **Monthly Admissions to Health Facilities**



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Chapter 16 Provincial Profiles — 16.7 Southern Highlands Province

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#### Volume 2 (Part B) | Reference Data and National Health Profile

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16.8 Enga Province





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Population served 2010:	392,664
Number of health centres:	33
Number of aid posts:	160
Percentage of aid posts closed in 2008:	56%
Doctors per 100,000:	5.2
HEOs per 100,000:	6.6
Nurses per 100,000:	48.0

Rural health staff	2003	2004	2005	2006	2007	2008
Doctors	7	10	6	7	7	10
HEOs	10	8	10	10	10	9
Nursing officers	101	133	128	64	107	98
CHWs at health centres	150	159	149	118	152	141
Staff at aid posts	76	48	58	23	57	49
Clinical supervisory visits	38%	18%	18%	12%	17%	33%

Equipment and supplies	2003	2004	2005	2006	2007	2008
Transport	34%	50%	39%	23%	42%	47%
Communications	47%	54%	93%	77%	92%	77%
Refrigerator	75%	82%	79%	83%	96%	83%
Standard Treatment Manuals	94%	93%	82%	93%	88%	93%
Health centres with oxygen	63%	61%	43%	60%	63%	60%
Monthly key supplies available	68%	64%	68%	68%	59%	55%
Health services	2003	2004	2005	2006	2007	2008
Family planning use		102	108	104	102	94
Antenatal coverage	38%	38%	42%	42%	38%	47%
Deliveries supervised	20%	23%	22%	23%	22%	25%
Triple antigen coverage	81%	52%	61%	69%	62%	67%
Measles immunisation	67%	40%	45%	55%	49%	50%
Monthly reporting rate	79%	74%	77%	75%	75%	83%
Health status	2003	2004	2005	2006	2007	2008
Children <5 severely malnourished	0.82%	0.59%	1.33%	1.81%	1.03%	0.69%
Deliveries low birth weight	2.50%	5.75%	4.80%	4.64%	6.34%	4.32%

#### **Equipment and Supplies**





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# % of facilities with oxygen



#### **Health Services**

Antenatal visit coverage (1st visit)



Triple antigen coverage



#### Proportion of deliveries in facility



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Measles immunisation coverage



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Outpatients per 1000 p.a. (2007–2008)		% <b>c</b>	% of all admissions (2008)			% of all deaths (2008)			
1	Simple cough	83	1	Normal delivery	26.38%	1	Pneumonia/ARI	24.34%	
2	Skin disease	74	2	Pneumonia/ARI	13.00%	2	Perinatal conditions – CA	12.54%	
3	Pneumonia	70	3	Accidents and injury	11.57%	3	Obstetric and maternal conditions	10.64%	
4	Malaria	62	4	Diarrhoea and enteric	10.22%	4	Chronic respiratory	6.71%	
5	Diarrhoea	38	5	Obstetric and maternal conditions	6.07%	5	Accidents and injury	5.83%	
6	Other respiratory	37	6	Perinatal conditions – CA	4.04%	6	Sepsis	5.83%	
7	Accidents	28	7	Skin diseases	3.94%	7	Diarrhoea and enteric	5.54%	
8	Ear infection	13	8	Malaria and other vector-borne	3.23%	8	Tuberculosis	5.10%	
9	Genital condition	13	9	Other gastro-intestinal	2.86%	9	HIV and other STI	4.66%	
10	Eye infection	12	10	Orthopaedic – rheumatology	2.79%	10	Cardiovascular	3.50%	
% o	f all outpatients	56.8%	% 0	f all admissions	84.10%	% 0	f all deaths	84.69%	





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Chapter 16 Provincial Profiles — 16.8 Enga Province

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#### **Monthly Admissions to Health Facilities**



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Other respiratory



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Typhoid





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Chapter 16 Provincial Profiles — 16.8 Enga Province

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## 16.9 Western Highlands Province

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Population served 2010:	563,274
Number of health centres:	42
Number of aid posts:	99
Percentage of aid posts closed in 2008:	23%
Doctors per 100,000:	4.2
HEOs per 100,000:	6.6
Nurses per 100,000:	55.5

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Rural health staff	2003	2004	2005	2006	2007	2008
Doctors	7	9	8	0	7	10
HEOs	17	23	15	11	17	17
Nursing officers	160	167	128	80	156	115
CHWs at health centres	167	182	142	116	198	182
Staff at aid posts	84	80	81	68	77	72
Clinical supervisory visits	50%	60%	60%	34%	26%	29%
Equipment and supplies	2003	2004	2005	2006	2007	2008
Transport	45%	36%	40%	50%	45%	47%
Communications	58%	74%	80%	63%	67%	59%
Refrigerator	87%	86%	83%	91%	88%	76%
Standard Treatment Manuals	87%	81%	94%	100%	88%	85%
Health centres with oxygen	66%	67%	71%	66%	79%	76%
Monthly key supplies available	53%	58%	59%	57%	56%	54%
Health services	2003	2004	2005	2006	2007	2008
Family planning use		194	207	242	218	215
Antenatal coverage	60%	54%	57%	62%	53%	55%
Deliveries supervised	33%	37%	32%	34%	32%	28%
Triple antigen coverage	76%	75%	71%	95%	59%	65%
Measles immunisation	60%	58%	62%	65%	48%	71%
Monthly reporting rate	90%	95%	91%	90%	90%	95%
Health status	2003	2004	2005	2006	2007	2008
Children <5 severely malnourished	1.34%	0.98%	1.41%	1.15%	1.14%	0.95%
Deliveries low birth weight	8.10%	7.68%	9.33%	7.59%	5.74%	5.17%

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#### **Equipment and Supplies**





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#### **Health Services**





#### Proportion of deliveries in facility







Chapter 16 Provincial Profiles — 16.9 Western Highlands Province

#### Leading Causes of Morbidity and Mortality

Outpatients per 1000 p.a. (2007–2008)			% c	of all admissions (2008)		% c	% of all deaths (2008)			
1	Malaria	174	1	Normal delivery	27.20%	1	Obstetric and maternal conditions	13.09%		
2	Simple cough	110	2	Pneumonia/ARI	10.20%	2	Perinatal conditions – CA	12.20%		
3	Pneumonia	75	3	Accidents and injury	7.53%	3	Pneumonia/ARI	11.62%		
4	Skin disease	64	4	Diarrhoea and enteric	7.27%	4	Diarrhoea and enteric	9.13%		
5	Diarrhoea	42	5	Obstetric and maternal conditions	6.87%	5	Sepsis	8.98%		
6	Other respiratory	40	6	Perinatal conditions – CA	6.06%	6	HIV and other STI	8.45%		
7	Accidents	31	7	Malaria and other vector-borne	5.48%	7	Malaria and other vector-borne	4.75%		
8	Genital condition	19	8	Other non- communicable	3.47%	8	Chronic respiratory	4.54%		
9	Ear infection	14	9	Other gastro-intestinal	2.98%	9	Accidents and injury	4.44%		
10	Eye infection	11	10	HIV and other STI	2.87%	10	Other non- communicable	4.44%		
% of	f all outpatients	69.5%	% 0	f all admissions	79.93%	% of	f all deaths	81.64%		

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Chapter 16 Provincial Profiles — 16.9 Western Highlands Province



### **Monthly Admissions to Health Facilities**



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Typhoid





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Chapter 16 Provincial Profiles — 16.9 Western Highlands Province

#### Volume 2 (Part B) | Reference Data and National Health Profile

## 16.10 Simbu Province





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Population served 2010:	310,421
Number of health centres:	30
Number of aid posts:	72
Percentage of aid posts closed in 2008:	24%
Doctors per 100,000:	4.6
HEOs per 100,000:	12.4
Nurses per 100,000:	81.3

Rural health staff	2003	2004	2005	2006	2007	2008
Doctors	1	0	0		0	1
HEOS	10	9	9		7	13
Nursing officers	83	56	94		78	96
CHWs at health centres	115	88	154		114	142
Staff at aid posts	51	44	46		51	45
Clinical supervisory visits	54%	23%	17%		13%	36%
Equipment and supplies	2003	2004	2005	2006	2007	2008
Transport	46%	35%	45%		55%	43%
Communications	31%	88%	93%		90%	86%
Refrigerator	88%	85%	97%		84%	96%
Standard Treatment Manuals	92%	85%	90%		97%	93%
Health centres with oxygen	81%	69%	76%		74%	75%
Monthly key supplies available	50%	55%	53%	64%	55%	46%
Health services	2003	2004	2005	2006	2007	2008
Family planning use		184	209	217	152	175
Antenatal coverage	57%	54%	56%	60%	44%	54%
Deliveries supervised	34%	35%	35%	37%	25%	34%
Triple antigen coverage	88%	75%	86%	99%	59%	64%
Measles immunisation	73%	59%	68%	80%	50%	50%
Monthly reporting rate	88%	93%	93%	66%	66%	95%
Health status	2003	2004	2005	2006	2007	2008
Children <5 severely malnourished	0.87%	1.20%	1.17%	1.42%	1.42%	1.15%
Deliveries low birth weight	4.80%	4.25%	4.50%	7.03%	7.03%	4.77%

#### **Equipment and Supplies**





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% of facilities with oxygen





#### **Health Services**









Proportion of deliveries in facility







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Chapter 16 Provincial Profiles — 16.10 Simbu Province

## Leading Causes of Morbidity and Mortality

Outpatients per 1000 p.a. (2007–2008)			% of all admissions (2008)			% of all deaths (2008)		
1	Malaria	103	1	Normal delivery	28.84%	1	Cancer	14.69%
2	Simple cough	57	2	Pneumonia/ARI	12.17%	2	Perinatal conditions – CA	10.88%
3	Pneumonia	54	3	Diarrhoea and enteric	9.97%	3	Sepsis	9.83%
4	Skin disease	44	4	Accidents and injury	7.17%	4	Other gastro-intestinal	8.59%
5	Diarrhoea	30	5	Obstetric and maternal conditions	7.02%	5	Tuberculosis	8.59%
6	Accidents	23	6	Malaria and vector- borne	5.10%	6	Pneumonia/ARI	7.35%
7	Genital condition	16	7	Perinatal conditions – CA	3.98%	7	Diarrhoea and enteric	6.39%
8	Other respiratory	16	8	Tuberculosis	3.91%	8	Obstetric and maternal conditions	5.73%
9	Ear infection	12	9	Other gastro-intestinal	2.64%	9	HIV and other STI	5.44%
10	Eye infection	6	10	Cancer	2.33%	10	Other non- communicable	5.06%
% of all outpatients 70.2%		% of all admissions 83.13%			% of all deaths 82.5			

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**Monthly Admissions to Health Facilities** 



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Chapter 16 Provincial Profiles — 16.10 Simbu Province

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## **16.11 Eastern Highlands Province**

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Population served 2010:	538,227
Number of health centres:	35
Number of aid posts:	180
Percentage of aid posts closed in 2008:	51%
Doctors per 100,000:	7.6
HEOs per 100,000:	6.3
Nurses per 100,000:	51.8

Rural health staff	2003	2004	2005	2006	2007	2008
Doctors	4	1	3	4	5	6
HEOs	23	15	13	19	22	22
Nursing officers	66	77	77	75	70	79
CHWs at health centres	172	174	201	203	201	191
Staff at aid posts	108	78	45	43	78	82
Clinical supervisory visits	42%	35%	31%	62%	49%	50%
Equipment and supplies	2003	2004	2005	2006	2007	2008
Transport	64%	71%	57%	74%	74%	69%
Communications	70%	85%	94%	97%	97%	92%
Refrigerator	91%	85%	94%	94%	91%	97%
Standard Treatment Manuals	97%	94%	97%	100%	80%	83%
Health centres with oxygen	82%	94%	89%	85%	74%	83%
Monthly key supplies available	56%	62%	57%	59%	61%	48%
Health services	2003	2004	2005	2006	2007	2008
Family planning use		228	276	237	280	308
Antenatal coverage	42%	46%	52%	45%	57%	57%
Deliveries supervised	19%	25%	23%	26%	33%	37%
Triple antigen coverage	69%	58%	69%	131%	87%	69%
Measles immunisation	52%	50%	47%	62%	68%	94%
Monthly reporting rate	95%	94%	100%	99%	99%	99%
Health status	2003	2004	2005	2006	2007	2008
Children <5 severely malnourished	2.39%	1.50%	1.47%	1.27%	1.53%	1.71%
Deliveries low birth weight	6.50%	7.28%	6.71%	6.47%	5.16%	6.99%

#### **Equipment and Supplies**





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10%			

#### **Health Services**





Proportion of deliveries in facility



Measles immunisation coverage



Chapter 16 Provincial Profiles — 16.11 Eastern Highlands Province

#### Leading Causes of Morbidity and Mortality

	Outpatients per 1000 p.a. (2007–2008)			% of all admissions (2008)			% of all deaths (2008)		
1	Malaria	130	1	Normal delivery	31.54%	1	Perinatal conditions	18.54%	
2	Simple cough	90	2	Pneumonia/ARI	11.41%	2	Sepsis	9.18%	
3	Pneumonia	80	3	Obstetric and maternal conditions	9.53%	3	Diarrhoea and enteric	8.65%	
4	Skin disease	68	4	Diarrhoea and enteric	6.87%	4	Pneumonia/ARI	8.29%	
5	Diarrhoea	47	5	Accidents and injury	5.90%	5	HIV and other STI	6.95%	
6	Genital condition	34	6	Perinatal conditions – CA	5.67%	6	Tuberculosis	6.60%	
7	Accidents	25	7	Malaria and other vector-borne	3.94%	7	Malaria and other vector-borne	6.24%	
8	Other respiratory	19	8	Cancer	3.00%	8	Cardiovascular	5.53%	
9	Ear infection	16	9	Other gastro-intestinal	2.42%	9	Other gastro-intestinal	4.99%	
10	Eye infection	11	10	Tuberculosis	2.34%	10	Cancer	4.37%	
% 0	% of all outpatients 70.8%		% of all admissions 82.62%			% of all deaths 79.34%			

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### **Monthly Admissions to Health Facilities**



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Chapter 16 Provincial Profiles — 16.11 Eastern Highlands Province

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### Volume 2 (Part B) | Reference Data and National Health Profile

# **16.12 Morobe Province**





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Population served 2010:	710,959
Number of health centres:	49
Number of aid posts:	203
Percentage of aid posts closed in 2008:	37%
Doctors per 100,000:	5.6
HEOs per 100,000:	1.0
Nurses per 100,000:	25.2

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Rural health staff	2003	2004	2005	2006	2007	2008
Doctors	8	5	7	9	9	3
HEOs	14	20	17	10	16	17
Nursing officers	128	148	163	68	131	123
CHWs at health centres	383	297	289	138	292	256
Staff at aid posts	173	192	212	159	198	139
Clinical supervisory visits	47%	39%	33%	17%	20%	9%
Equipment and supplies	2003	2004	2005	2006	2007	2008
Transport	40%	39%	63%	48%	57%	67%
Communications	91%	89%	94%	87%	89%	85%
Refrigerator	76%	78%	81%	87%	85%	70%
Standard Treatment Manuals	87%	83%	92%	74%	89%	88%
Health centres with oxygen	73%	72%	77%	52%	65%	64%
Monthly key supplies available	54%	57%	51%	54%	54%	55%
Health services	2003	2004	2005	2006	2007	2008
Family planning use		228	345	244	240	271
Antenatal coverage	58%	58%	56%	52%	57%	55%
Deliveries supervised	31%	33%	32%	38%	20%	30%
Triple antigen coverage	68%	69%	60%	55%	62%	51%
Measles immunisation	52%	54%	47%	44%	46%	49%
Monthly reporting rate	92%	95%	88%	90%	90%	93%
Health status	2003	2004	2005	2006	2007	2008
Children <5 severely malnourished	2.53%	2.22%	2.15%	1.81%	1.68%	1.46%
Deliveries low birth weight	7.20%	6.14%	5.23%	6.03%	8.20%	6.59%

### **Equipment and Supplies**





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### **Health Services**







### Proportion of deliveries in facility







Chapter 16 Provincial Profiles — 16.12 Morobe Province

### Volume 2 (Part B) | Reference Data and National Health Profile

Outpatients per 1000 p.a. (2007–2008)		% c	% of all admissions (2008)			% of all deaths (2008)		
1	Malaria	284	1	Normal delivery	33.96%	1	Perinatal conditions – CA	15.56%
2	Simple cough	81	2	Malaria and vector- borne	11.09%	2	Malaria and other vector- borne	13.70%
3	Skin disease	75	3	Accidents and injury	8.42%	3	Pneumonia/ARI	9.89%
4	Other respiratory	48	4	Pneumonia/ARI	7.95%	4	Tuberculosis	9.40%
5	Pneumonia	45	5	Obstetric and maternal conditions	6.80%	5	Sepsis	7.94%
6	Diarrhoea	28	6	Perinatal conditions – CA	6.01%	6	Diarrhoea and enteric	6.97%
7	Accidents	24	7	Tuberculosis	3.14%	7	Anaemia – Haematology	5.43%
8	Ear infection	10	8	Other gastro-intestinal	2.91%	8	Chronic respiratory	5.02%
9	Eye infection	9	9	Diarrhoea and enteric	2.85%	9	Cancer	4.94%
10	Genital condition	5	10	Chronic respiratory	2.07%	10	Accidents and injury	4.78%
% of all outpatients 80.6%		% 0	% of all admissions 85.2%		% 0	83.63%		

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% of all deaths 83.63%

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# **Leading Causes of Morbidity and Mortality**

Chapter 16 Provincial Profiles — 16.12 Morobe Province

# **Monthly Admissions to Health Facilities**



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Typhoid













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Chapter 16 Provincial Profiles — 16.12 Morobe Province

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# 16.13 Madang Province





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Population served 2010:	476,563
Number of health centres:	46
Number of aid posts:	211
Percentage of aid posts closed in 2008:	20%
Doctors per 100,000:	2.2
HEOs per 100,000:	6.9
Nurses per 100,000:	39.2

Rural health staff	2003	2004	2005	2006	2007	2008
Doctors	3	9	3	0	3	2
HEOs	13	16	14	9	17	20
Nursing officers	75	104	103	64	86	106
CHWs at health centres	141	209	186	109	172	191
Staff at aid posts	60	127	133	88	111	124
Clinical supervisory visits	59%	26%	35%	28%	31%	36%
Equipment and supplies	2003	2004	2005	2006	2007	2008
Transport	47%	49%	43%	72%	61%	50%
Communications	78%	80%	88%	92%	94%	89%
Refrigerator	84%	83%	90%	92%	92%	93%
Standard Treatment Manuals	84%	91%	80%	84%	81%	80%
Health centres with oxygen	69%	74%	58%	72%	72%	57%
Monthly key supplies available	50%	46%	51%	56%	60%	56%
Health services	2003	2004	2005	2006	2007	2008
Family planning use		172	204	200	197	223
Antenatal coverage	55%	52%	66%	58%	55%	63%
Deliveries supervised	35%	33%	33%	30%	24%	39%
Triple antigen coverage	52%	42%	55%	62%	55%	49%
Measles immunisation	42%	38%	43%	51%	44%	52%
Monthly reporting rate	82%	79%	95%	94%	94%	97%
Health status	2003	2004	2005	2006	2007	2008
Children <5 severely malnourished	2.39%	2.43%	2.45%	1.92%	2.15%	2.11%
Deliveries low birth weight	15.70%	16.31%	14.68%	13.73%	12.95%	13.66%

### **Equipment and Supplies**





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% of facilities with refrigerator 905 80% 70% 60% 50% 40% 30% 20% 10%





# **Health Services**



Triple antigen coverage



### Proportion of deliveries in facility



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Measles immunisation coverage

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Chapter 16 Provincial Profiles — 16.13 Madang Province

Outpatients per 1000 p.a. (2007–2008)		% 0	f all admissions (2008)		% o	% of all deaths (2008)			
1	Malaria	317	1	Normal delivery	26.89%	1	Malaria and other vector-borne	13.11%	
2	Skin disease	96	2	Pneumonia/ARI	11.82%	2	Perinatal conditions – CA	12.50%	
3	Simple cough	82	3	Malaria and vector- borne	11.30%	3	Sepsis	10.53%	
4	Pneumonia	69	4	Accidents and injury	9.51%	4	Chronic respiratory	9.15%	
5	Other respiratory	32	5	Obstetric and maternal conditions	6.64%	5	Tuberculosis	7.77%	
6	Diarrhoea	27	6	Perinatal conditions – CA	5.50%	6	Pneumonia/ARI	6.71%	
7	Accidents	26	7	Tuberculosis	3.76%	7	Accidents and injury	5.34%	
8	Ear infection	12	8	Diarrhoea and enteric	3.39%	8	Cancer	5.34%	
9	Eye infection	12	9	Other gastro-intestinal	2.92%	9	Cardiovascular	5.03%	
10	Anaemia	6	10	Chronic respiratory	2.50%	10	Other gastro-intestinal	5.03%	
% o	f all outpatients	78.5%	% of	all admissions	84.23%	% of	all deaths	80.51%	

# Leading Causes of Morbidity and Mortality





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## **Monthly Admissions to Health Facilities**



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Accidents and injury



Other respiratory



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### Chapter 16 Provincial Profiles — 16.13 Madang Province

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Chapter 16 Provincial Profiles — 16.13 Madang Province

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# 16.14 East Sepik Province





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Population served 2010:	426,617
Number of health centres:	43
Number of aid posts:	243
Percentage of aid posts closed in 2008:	24%
Doctors per 100,000:	3.4
HEOs per 100,000:	4.6
Nurses per 100,000:	37.6

Rural health staff	2003	2004	2005	2006	2007	2000
					2007	2008
Doctors	2	2	3	2	3	3
HEOs	10	11	6	8	6	14
Nursing officers	107	100	104	90	95	96
CHWs at health centres	138	130	155	141	181	150
Staff at aid posts	141	115	100	100	99	135
Clinical supervisory visits	43%	28%	14%	26%	30%	21%
Equipment and supplies	2003	2004	2005	2006	2007	2008
Transport	74%	90%	83%	77%	79%	81%
Communications	91%	93%	88%	95%	91%	95%
Refrigerator	100%	98%	95%	91%	88%	93%
Standard Treatment Manuals	89%	98%	95%	74%	88%	74%
Health centres with oxygen	66%	78%	69%	56%	49%	50%
Monthly key supplies available	73%	62%	67%	73%	69%	51%
Health services	2003	2004	2005	2006	2007	2008
Family planning use		171	185	218	234	237
Antenatal coverage	51%	66%	59%	60%	69%	61%
Deliveries supervised	11%	27%	17%	28%	27%	27%
Triple antigen coverage	55%	56%	64%	85%	67%	48%
Measles immunisation	43%	42%	51%	61%	51%	47%
Monthly reporting rate	81%	98%	92%	97%	97%	94%
Health status	2003	2004	2005	2006	2007	2008
Children <5 severely malnourished	1.94%	2.13%	3.54%	2.09%	1.63%	1.76%
Deliveries low birth weight	11.90%	27.99%	14.03%	15.77%	16.84%	25.62%

### **Equipment and Supplies**





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% of facilities with oxygen



90%	_					
80%						
70%						
50%						
50%						12121
40%					861 []	
30%						
20%						
10%						
0%	2003	2004	2005	2005	2007	2008

### **Health Services**



Triple antigen coverage 100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% 2003 2004 2005 2006 2007 2008

Proportion of deliveries in facility



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Chapter 16 Provincial Profiles — 16.14 East Sepik Province

	Outpatients per 1000 p.a. (2007–2008)		% o	f all admissions (2008)		% c	% of all deaths (2008)			
1	Malaria	330	1	Normal delivery	26.45%	1	Perinatal conditions – CA	18.21%		
2	Skin disease	130	2	Pneumonia/ARI	10.49%	2	Malaria and other vector-borne	14.95%		
3	Simple cough	104	3	Malaria and other vector-borne	9.51%	3	Sepsis	8.32%		
4	Pneumonia	77	4	Perinatal conditions – CA	9.11%	4	Tuberculosis	7.93%		
5	Diarrhoea	43	5	Accidents and injury	8.73%	5	Pneumonia/ARI	6.63%		
6	Accidents and injury	42	6	Obstetric and maternal conditions	6.73%	6	Accidents and injury	6.37%		
7	Other respiratory	35	7	Tuberculosis	3.94%	7	Cardiovascular	4.42%		
8	Ear infection	18	8	Diarrhoea and enteric	3.36%	8	Other genito-urinary	4.42%		
9	Eye infection	18	9	Anaemia – Haematology	2.63%	9	Cancer	4.16%		
10	Anaemia	10	10	Other gastro-intestinal	2.50%	10	Chronic respiratory	4.16%		
% oʻ	f all outpatients	77.6%	% of	all admissions	83.45%	% 0	f all deaths	79.57%		





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Leading Causes of Morbidity and Mortality

# **Monthly Admissions to Health Facilities**



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Chapter 16 Provincial Profiles — 16.14 East Sepik Province

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# 16.15 Sandaun Province





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Population served 2010:	235,454
Number of health centres:	36
Number of aid posts:	130
Percentage of aid posts closed in 2008:	37%
Doctors per 100,000:	3.0
HEOs per 100,000:	7.4
Nurses per 100,000:	58.7

Rural health staff	2003	2004	2005	2006	2007	2008
Doctors	2	1	2	2	2	2
HEOs	11	8	7	9	8	8
Nursing officers	92	66	65	71	52	62
CHWs at health centres	137	114	127	113	144	149
Staff at aid posts	122	88	84	112	51	75
Clinical supervisory visits	44%	40%	26%	86%	46%	19%
Equipment and supplies	2003	2004	2005	2006	2007	2008
Transport	32%	33%	32%	31%	37%	31%
Communications	79%	90%	88%	94%	97%	92%
Refrigerator	100%	97%	94%	89%	91%	75%
Standard Treatment Manuals	91%	83%	82%	72%	83%	86%
Health centres with oxygen	65%	53%	50%	25%	49%	36%
Monthly key supplies available	43%	48%	48%	51%	53%	54%
Health services	2003	2004	2005	2006	2007	2008
Family planning use		187	195	186	171	193
Antenatal coverage	50%	53%	49%	47%	44%	44%
Deliveries supervised	24%	23%	23%	21%	20%	22%
Triple antigen coverage	57%	64%	52%	37%	38%	37%
Measles immunisation	54%	50%	50%	37%	37%	85%
Monthly reporting rate	94%	93%	87%	83%	83%	77%
Health status	2003	2004	2005	2006	2007	2008
Children <5 severely malnourished	2.50%	2.43%	3.33%	2.88%	2.91%	2.09%
Deliveries low birth weight	19.90%	18.65%	19.43%	21.63%	17.17%	16.73%

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Chapter 16 Provincial Profiles — 16.15 Sandaun Province

### **Equipment and Supplies**





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### **Health Services**







### Proportion of deliveries in facility







Chapter 16 Provincial Profiles — 16.15 Sandaun Province

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Outpatients per 1000 p.a. (2007–2008)		% 0	% of all admissions (2008)			% of all deaths (2008)		
1	Malaria	358	1	Normal delivery	22.65%	1	Perinatal conditions – CA	11.64
2	Skin disease	116	2	Malaria and other vector-borne	10.56%	2	Malaria and other vector-borne	11.19
3	Simple cough	108	3	Pneumonia/ARI	9.65%	3	Anaemia – Haematology	10.73
4	Pneumonia	65	4	Accidents and injury	9.11%	4	Pneumonia/ARI	10.73
5	Other respiratory	45	5	Obstetric and maternal conditions	8.46%	5	Accidents and injury	7.65
6	Diarrhoea	35	6	Perinatal conditions – CA	7.34%	6	Obstetric and maternal conditions	7.08
7	Accidents and injury	23	7	Tuberculosis	3.75%	7	Chronic respiratory	6.05
8	Ear infection	15	8	Diarrhoea and enteric	3.48%	8	Sepsis	6.05
9	Eye infection	15	9	Other gastro-intestinal	3.45%	9	Cardiovascular	4.11
10	Anaemia	5	10	Anaemia – Haematology	3.33%	10	Other non- communicable	4.11
% o	f all outpatients	71.9%	% of	f all admissions	81.78%	% of	all deaths	79.34





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Leading Causes of Morbidity and Mortality

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## **Monthly Admissions to Health Facilities**



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Chapter 16 Provincial Profiles — 16.15 Sandaun Province

### Volume 2 (Part B) | Reference Data and National Health Profile

# 16.16 Manus Province





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Population served 2010:	56,082
Number of health centres:	13
Number of aid posts:	68
Percentage of aid posts closed in 2008:	13%
Doctors per 100,000:	11.0
HEOs per 100,000:	29.3
Nurses per 100,000:	97.0

Rural health staff	2003	2004	2005	2006	2007	2008
Doctors	0	1	1	1	1	0
HEOs	3	6	6	5	5	6
Nursing officers	18	19	26	28	26	24
CHWs at health centres	13	22	28	30	31	28 54 85%
Staff at aid posts	23	42	45	49	24	
Clinical supervisory visits	0%	62%	46%	62%	77%	
Equipment and supplies	2003	2004	2005	2006	2007	2008
Transport	80%	62%	54%	62%	77%	69%
Communications	60%	69%	100%	92%	100%	100%
Refrigerator	80%	92%	85%	92%	77%	100%
Standard Treatment Manuals	100%	92%	100%	100%	100%	100%
Health centres with oxygen	40%	100%	92%	85%	100%	77%
Monthly key supplies available	52%	48%	61%	59%	56%	56%
Health services	2003	2004	2005	2006	2007	2008
Family planning use		185	217	220	233	262
Antenatal coverage	64%	69%	62%	72%	71%	82%
Deliveries supervised	46%	49%	53%	51%	54%	51%
Triple antigen coverage	76%	97%	84%	100%	88%	93%
Measles immunisation	59%	68%	66%	79%	72%	87%
Monthly reporting rate	95%	95%	94%	92%	92%	80%
Health status	2003	2004	2005	2006	2007	2008
Children <5 severely malnourished	0.97%	0.91%	0.53%	0.55%	0.36%	0.46%
Deliveries low birth weight	13.60%	3.97%	3.75%	5.20%	3.84%	4.72%

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Chapter 16 Provincial Profiles — 16.16 Manus Province

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### **Equipment and Supplies**





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### **Health Services**





### Proportion of deliveries in facility



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Chapter 16 Provincial Profiles — 16.16 Manus Province

#### Outpatients per 1000 p.a. % of all admissions (2008) % of all deaths (2008) (2007-2008) Malaria 306 Normal delivery 31.56 1 Cardiovascular 1 1 2 Skin disease 175 2 Perinatal conditions -9.91 2 Perinatal conditions -CA CA Obstetric and maternal 3 Simple cough 169 3 9.88 3 Other gastro-intestinal conditions 4 Pneumonia 103 4 Accidents and injury 8.87 4 Sepsis 5 5 Accidents 57 5 Malaria and other 6.05 Cancer vector-borne Other gastro-intestinal 6 Other respiratory 54 6 5.04 6 Other noncommunicable 7 7 7 Diarrhoea 35 Pneumonia/ARI 4.07 Pneumonia/ARI 8 Ear infection 19 8 Diarrhoea and enteric 8 Anaemia – 3.39 Haematology 9 Eye infection 16 9 Chronic respiratory 2.94 9 Diabetes and other endocrine Genital condition 10 Other genito-urinary Malaria and other 10 4 2.50 10 vector-borne % of all outpatients 78.6% % of all admissions 84.21% % of all deaths 84.82%

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**Leading Causes of Morbidity and Mortality** 

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18.28% 15.00% 8.34% 8.34% 6.65% 6.65% 6.65% 4.97% 4.97%

4.97%

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Chapter 16 Provincial Profiles — 16.16 Manus Province

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# **Monthly Admissions to Health Facilities**



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Accidents and injury



Other respiratory



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Chapter 16 Provincial Profiles — 16.16 Manus Province

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# 16.17 New Ireland Province





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Population served 2010:	157,514
Number of health centres:	30
Number of aid posts:	58
Percentage of aid posts closed in 2008:	38%
Doctors per 100,000:	8.5
HEOs per 100,000:	17.6
Nurses per 100,000:	101.9

Rural health staff	2003	2004	2005	2006	2007	2008
Doctors	2	3	4	3	4	6
HEOs	20	18	21	19	18	27
Nursing officers	104	106	107	87	83	95
CHWs at health centres	102	86	92	100	102	95
Staff at aid posts	27	38	37	35	39	21
Clinical supervisory visits	30%	21%	14%	3%	3%	45%
Equipment and supplies	2003	2004	2005	2006	2007	2008
Transport	80%	79%	79%	90%	87%	93%
Communications	40%	61%	72%	97%	97%	90% 90%
Refrigerator	73%	93%	93%	83%	87%	
Standard Treatment Manuals	90%	79%	86%	83%	87%	90%
Health centres with oxygen	93%	82%	72%	63%	67%	69%
Monthly key supplies available	83%	81%	82%	81%	71%	61%
Health services	2003	2004	2005	2006	2007	2008
Family planning use		226	168	140	164	164
Antenatal coverage	85%	85%	84%	81%	85%	77%
Deliveries supervised	64%	58%	64%	51%	62%	60%
Triple antigen coverage	65%	82%	88%	87%	86%	86%
Measles immunisation	50%	57%	68%	72%	71%	65%
Monthly reporting rate	92%	95%	95%	98%	98%	96%
Health status	2003	2004	2005	2006	2007	2008
Children <5 severely malnourished	1.00%	0.67%	0.78%	0.84%	0.57%	0.96%
Deliveries low birth weight	8.80%	7.82%	10.55%	6.73%	8.92%	9.13%

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Chapter 16 Provincial Profiles — 16.17 New Ireland Province

### **Equipment and Supplies**





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## **Health Services**



Triple antigen coverage











Chapter 16 Provincial Profiles — 16.17 New Ireland Province

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# Leading Causes of Morbidity and Mortality

Outpatients per 1000 p.a. (2007–2008)		% c	% of all admissions (2008)			% of all deaths (2008)		
1	Malaria	546	1	Normal delivery	27.22%	1	Sepsis	15.92%
2	Skin disease	205	2	Malaria and other vector-borne	12.54%	2	Perinatal conditions – CA	8.82%
3	Pneumonia	92	3	Pneumonia/ARI	8.53%	3	Anaemia – Haematology	8.42%
4	Simple cough	90	4	Accidents and injury	7.82%	4	Cardiovascular	6.64%
5	Other respiratory	67	5	Obstetric and maternal conditions	6.52%	5	Malaria and other vector-borne	6.64%
6	Diarrhoea	42	6	Other gastro-intestinal	4.86%	6	Chronic respiratory	6.18%
7	Accidents and injury	41	7	Anaemia – Haematology	4.49%	7	Pneumonia/ARI	6.18%
8	Ear infection	30	8	Diarrhoea and enteric diseases	4.07%	8	Cancer	5.33%
9	Yaws	29	9	Perinatal conditions – CA	3.40%	9	Tuberculosis	5.33%
10	Eye infection	24	10	Skin diseases	3.34%	10	Diarrhoea and other vector-borne	4.87%
% о	f all outpatients	81.9%	% 0	f all admissions	82.79%	% 0	f all deaths	74.33%

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Chapter 16 Provincial Profiles — 16.17 New Ireland Province













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Chapter 16 Provincial Profiles — 16.17 New Ireland Province



















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Chapter 16 Provincial Profiles — 16.17 New Ireland Province
## 16.18 East New Britain Province

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Population served 2010:	281,789
Number of health centres:	31
Number of aid posts:	97
Percentage of aid posts closed in 2008:	12%
Doctors per 100,000:	7.6
HEOs per 100,000:	9.8
Nurses per 100,000:	97.1

Rural health staff	2003	2004	2005	2006	2007	2008	
Doctors	7	7	0	7	5	6	
HEOs	16	12	1	18	18	19	
Nursing officers	134	134	19	144	156	142	
CHWs at health centres	139	131	12	128	151	124	
Staff at aid posts	48	65	10	51	58	47	
Clinical supervisory visits	61%	46%	20%	42%	55%	60%	
Equipment and supplies	2003	2004	2005	2006	2007	2008	
Transport	71%	68%	20%	69%	65%	90%	
Communications	86%	86%	80%	92%	94%	100%	
Refrigerator	96%	86%	80%	92%	87%	85%	
Standard Treatment Manuals	96%	93%	80%	81%	81%	90%	
Health centres with oxygen	86%	75%	60%	81%	81%	85%	
Monthly key supplies available	51%	63%	64%	62%	53%	49%	
Health services	2003	2004	2005	2006	2007	2008	
Family planning use		201	151	289	461	576	
Antenatal coverage	85%	81%	78%	82%	82%	85%	
Deliveries supervised	78%	68%	70%	76%	76%	72%	
Triple antigen coverage	92%	73%	75%	75%	82%	68%	
Measles immunisation	78%	61%	62%	58%	62%	72%	
Monthly reporting rate	91%	95%	92%	93%	93%	93%	
Health status	2003	2004	2005	2006	2007	2008	
Children <5 severely malnourished	0.81%	0.76%	0.71%	0.90%	1.10%	1.51%	
Deliveries low birth weight	5.60%	6.03%	6.77%	6.49%	4.98%	5.71%	

#### **Equipment and Supplies**





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#### **Health Services**





Proportion of deliveries in facility





Measles immunisation coverage

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Lea	Leading Causes of Morbidity and Mortality									
	patients per 1000 p. 07–2008)	α.	% <b>c</b>	of all admissions (2008)		% o	f all deaths (2008)			
1	Malaria	464	1	Normal delivery	36.43%	1	Pneumonia/ARI	14.75%		
2	Skin disease	115	2	Malaria and other vector-borne	8.58%	2	Malaria and other vector-borne	11.21%		
3	Pneumonia	110	3	Pneumonia/ARI	7.54%	3	Sepsis	10.15%		
4	Simple cough	55	4	Obstetric and maternal conditions	7.10%	4	Tuberculosis	9.68%		
5	Accidents and injury	46	5	Perinatal conditions – CA	5.98%	5	Perinatal conditions – CA	8.79%		
6	Other respiratory	32	6	Accidents and injury	5.82%	6	Cancer	5.25%		
7	Diarrhoea	31	7	Other gastro-intestinal	4.08%	7	Other gastro-intestinal	5.25%		
8	Ear infection	23	8	Anaemia – Haematology	3.33%	8	Other non- communicable	5.07%		
9	Eye infection	16	9	Diarrhoea and enteric	2.88%	9	Cardiovascular	4.84%		
10	Yaws	9	10	Tuberculosis	2.56%	10	Anaemia – Haematology	4.60%		
% 0	f all outpatients	82.6%	% 0	f all admissions	84.30%	% of	all deaths	79.59%		





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### **Monthly Admissions to Health Facilities**



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Tuberculosis



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Chapter 16 Provincial Profiles — 16.18 East New Britain Province

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## 16.19 West New Britain Province

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Population served 2010:	260,269
Number of health centres:	32
Number of aid posts:	125
Percentage of aid posts closed in 2008:	20%
Doctors per 100,000:	5.9
HEOs per 100,000:	11.8
Nurses per 100,000:	61.5

Rural health staff	2003	2004	2005	2006	2007	2008
Doctors	2	2	2	2	4	2
HEOs	12	18	19	21	15	15
Nursing officers	92	94	98	103	90	88
CHWs at health centres	121	127	134	137	131	134
Staff at aid posts	108	79	91	110	78	100
Clinical supervisory visits	31%	19%	16%	10%	22%	63%
Equipment and supplies	2003	2004	2005	2006	2007	2008
Transport	79%	66%	66%	77%	69%	78%
Communications	66%	97%	97%	90%	97%	97%
Refrigerator	90%	84%	88%	87%	81%	84%
Standard Treatment Manuals	86%	88%	88%	97%	81%	88%
Health centres with oxygen	79%	75%	78%	74%	66%	66%
Monthly key supplies available	34%	29%	31%	38%	35%	36%
Health services	2003	2004	2005	2006	2007	2008
Family planning use		237	260	274	244	264
Antenatal coverage	81%	97%	100%	85%	92%	96%
Deliveries supervised	56%	67%	71%	49%	40%	54%
Triple antigen coverage	77%	89%	113%	81%	82%	96%
Measles immunisation	57%	66%	88%	70%	67%	102%
Monthly reporting rate	97%	98%	99%	94%	94%	90%
Health status	2003	2004	2005	2006	2007	2008
Children <5 severely malnourished	1.19%	0.93%	0.91%	0.96%	1.07%	0.82%
Deliveries low birth weight	8.70%	9.42%	10.30%	7.94%	5.67%	8.40%

#### **Equipment and Supplies**





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% of facilities with refrigerator 90% 80% 70% 60% 50% 40% 30% 205 10%

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#### **Health Services**



Triple antigen coverage 100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% 2003 2004 2005 2006 2007 2008

Proportion of deliveries in facility





Measles immunisation coverage

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Outpatients per 1000 p.a. (2007–2008)		% 0	f all admissions (2008)		% (	% of all deaths (2008)		
1	Malaria	397	1	Normal delivery	32.70%	1	Malaria and other vector-borne	12.88%
2	Skin disease	127	2	Malaria and other vector-borne	12.85%	2	Tuberculosis	12.30%
3	Pneumonia	95	3	Pneumonia/ARI	10.97%	3	Anaemia – Haematology	11.06%
4	Simple cough	95	4	Obstetric and maternal conditions	6.31%	4	Perinatal conditions – CA	10.19%
5	Diarrhoea	53	5	Accidents and injury	6.25%	5	Pneumonia/ARI	10.19%
6	Ear infection	42	6	Perinatal conditions – CA	4.78%	6	Diarrhoea and enteric	7.21%
7	Accidents	35	7	Diarrhoea and enteric	4.21%	7	Sepsis	7.21%
8	Other respiratory	34	8	Other gastro-intestinal	3.13%	8	Accidents and injury	5.39%
9	Eye infection	23	9	Tuberculosis	2.70%	9	Cancer	3.93%
10	Yaws	17	10	Anaemia – Haematology	2.65%	10	Other gastro-intestinal	3.28%
% of	f all outpatients	82.0%	% of	all admissions	86.55%	% 0	f all deaths	83.64%





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# Leading Causes of Morbidity and Mortality

Chapter 16 Provincial Profiles — 16.19 West New Britain Province





National Health Plan 2011–2020



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Accidents and injury





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Chapter 16 Provincial Profiles — 16.19 West New Britain Province

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## 16.20 Autonomous Region of Bougainville





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Population served 2010:	206,330
Number of health centres:	32
Number of aid posts:	180
Percentage of aid posts closed in 2008:	31%
Doctors per 100,000:	5.5
HEOs per 100,000:	13.0
Nurses per 100,000:	50.9

Rural health staff	2003	2004	2005	2006	2007	2008
Doctors	2	1	1	0	1	2
HEOs	5	7	7	8	10	14
Nursing officers	89	90	92	87	85	93
CHWs at health centres	121	127	121	107	111	118
Staff at aid posts	94	132	123	115	94	111
Clinical supervisory visits	26%	9%	13%	16%	24%	22%
Equipment and supplies	2003	2004	2005	2006	2007	2008
Transport	32%	31%	31%	35%	34%	22%
Communications	48%	34%	28%	90%	90%	91%
Refrigerator	100%	97%	94%	87%	86%	81%
Standard Treatment Manuals	81%	91%	94%	81%	93%	97%
Health centres with oxygen	52%	56%	41%	42%	38%	47%
Monthly key supplies available	44%	54%	53%	54%	58%	49%
Health services	2003	2004	2005	2006	2007	2008
Family planning use		48	61	68	89	92
Antenatal coverage	69%	63%	74%	70%	87%	86%
Deliveries supervised	46%	42%	48%	50%	56%	62%
Triple antigen coverage	48%	45%	79%	71%	84%	59%
Measles immunisation	38%	34%	52%	49%	54%	59%
Monthly reporting rate	93%	96%	100%	95%	95%	97%
Health status	2003	2004	2005	2006	2007	2008
Children <5 severely malnourished	2.06%	1.70%	1.44%	1.25%	1.08%	1.20%
Deliveries low birth weight	6.00%	6.22%	6.43%	6.70%	4.90%	6.27%

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Chapter 16 Provincial Profiles — 16.20 Autonomous Region of Bougainville

#### **Equipment and Supplies**





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90%		-			-	
80%	-					
70%						
60%		1				THE REAL PROPERTY.
50%						
10%						
30%						
20%		1 31				1
10%						
0% 1	2003	2004	2005	2006	2007	2008

#### **Health Services**



Triple antigen coverage 100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% 2003 2004 2005 2006 2007 2008

Proportion of deliveries in facility







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Outpatients per 1000 p.a. (2007–2008)		% c	f all admissions (2008)		% 0	% of all deaths (2008)		
1	Malaria	230	1	Normal delivery	35.37%	1	Malaria and other vector-borne	15.87%
2	Simple cough	77	2	Malaria and other vector-borne	10.38%	2	Perinatal conditions – CA	15.38%
3	Skin disease	76	3	Pneumonia/ARI	8.35%	3	Sepsis	13.46%
4	Pneumonia	54	4	Obstetric and maternal conditions	7.54%	4	Pneumonia/ARI	10.58%
5	Diarrhoea	26	5	Accidents and injury	6.88%	5	Tuberculosis	9.13%
6	Accidents	18	6	Other gastro-intestinal	5.54%	6	Other gastro-intestinal	7.69%
7	Other respiratory	12	7	Perinatal conditions – CA	3.47%	7	Anaemia – Haematology	5.29%
8	Eye infection	11	8	Tuberculosis	3.16%	8	Obstetric and maternal conditions	3.85%
9	Ear infection	9	9	Diarrhoea and enteric	2.49%	9	Cardiovascular	3.37%
10	Yaws	4	10	Other genito-urinary	2.27%	10	Other non- communicable	3.37%
% o'	f all outpatients	81.0%	% of	fall admissions	85.45%	% 0	f all deaths	87.99%





**Leading Causes of Morbidity and Mortality** 

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#### **Monthly Admissions to Health Facilities**



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Tuberculosis















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