

## 12 Environmental Health and Port Health

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This chapter includes two indicators, namely:

- Environmental health services compliance rate; and
- Port health services compliance rate.

Environmental health services (EHS) is a function that is rendered in all three spheres; national, provincial and local. Municipal Health Services include environmental health services that are rendered in district and metropolitan municipalities in South Africa. Section 32 (1) of the National Health Act 2003 (Act 61 of 2003),<sup>a</sup> as amended, stipulates that, "Every Metropolitan and District Municipality must ensure that appropriate municipal health services are effectively and equitably provided in their respective areas."

The National Health Act<sup>a</sup> defines the package of EHS that municipalities are required to render as follows:

- ◆ Water quality monitoring
- ◆ Food control
- ◆ Environmental pollution control
- ◆ Vector control
- ◆ Surveillance and prevention of communicable diseases
- ◆ Health surveillance of premises
- ◆ Waste management and general hygiene monitoring
- ◆ Disposal of the dead
- ◆ Chemical safety management.

The National Department of Health (NDoH) set national environmental health norms and standards<sup>b</sup> in 2015 which municipalities should adhere to in rendering environmental health services. These norms and standards define service delivery standards for effective delivery of environmental health services by municipalities and acceptable monitoring standards for Environmental Health Practitioners (EHP) in performing their functions. The quality of EHS rendered are measured using these norms and standards.

A set of minimum service delivery standards must be met for a municipality to be deemed compliant with the set national norms and standards of 2015. A municipality must have systems to:

- ◆ communicate about environmental health services, monitor client service experience, manage complaints, enable responsive client service and have infrastructure to communicate internally and externally;
- ◆ have the required human resource capacity to respond to service requirements and a communication system required for improved quality of service delivery;
- ◆ function as an integral part of a district health system, and collaborate and co-operate with stakeholders on issues of environmental health;
- ◆ implement programmes for the management of vectors, environmental pollution control, waste management, water quality monitoring, health surveillance of premises, community awareness, and disaster preparedness and response;
- ◆ enforce legislation to handle issues of non-compliance.

The NDoH used an assessment tool to assess compliance of municipalities for adherence to the norms and standards, which was developed and implemented for the 2015/16 and 2016/17 assessments. Minor changes were made to the tool for the 2017/18 assessments.

The assessment tool is divided into 5 domains: clients' rights, operational management, facility and infrastructure, leadership and co-operative governance, and operations. The five domains are divided into 11 components and the components are further divided into 19 sub-components. The sub-components in the original tool used in 2015/16 and 2016/17 had a total of 246 elements. The revised tool used in 2017/18 assessed municipalities on five domains, 11 components, 19 sub-components, and 244 elements (Table 1).

a National Department of Health. National Health Act, 2003 as amended. Pretoria: National Department of Health. 2003.

b National Department of Health. Environmental Health Norms and Standards for premises and acceptable monitoring standards for Environmental Health Practitioners, GG No 39561 of 24 December 2015. Pretoria: National Department of Health. 2015.

**Section A: Environmental health**

**Table 1: Environmental health services domains, components and sub-components, 2017/18**

Domains	Components	Sub-components	Number of elements
Client rights	1. Administration	1. Signage 2. Client experience of care 3. Client organisation	11
Operational management	2. Human resources	4. Staff allocation and use 5. Professional standard and staff identity 6. Internal communication	11
Facility and infrastructure	3. Infrastructure	7. Disaster management 8. ICT infrastructure	7
Leadership and corporate governance	4. District health system support	9. District health information systems 10. District health support 11. Multi-sectoral collaboration	11
Operational	5. Vector control	12. Vector/rodent/pest control	5
	6. Environmental pollution control	13. Environmental pollution control	7
	7. Waste management	14. Waste management	6
	8. Water quality monitoring	15. Water quality monitoring	7
	9. Law enforcement	16. Law enforcement	6
	10. Health surveillance of premises	17. Health surveillance of premises	167
	11. Miscellaneous	18. Complaints handling 19. Community health awareness	6

Figure 1 shows an example of a component, its sub-components and its associated elements of the audit tool. The compliance of a municipality is determined by assessing it against elements in the audit tool and reaching a subsequent score.

**Figure 1: Extract from a section of the Municipal audit/assessment tool**













COMPONENT	SUB COMPONENT	ELEMENT NO	ELEMENTS	WEIGHT	METHOD OF MEASURE	ACHIEVED	NOT ACHIEVED	ACTION PLAN IN PLACE	TIME FRAME	PORTFOLIO OF EVIDENCE
Administration	<b>1. Signage:</b> Monitor if there is communication about MHS in the Municipality									
		1	Display board reflecting facility name, service hours and contact details and that EHS is rendered in the municipality	H						
		2	Sign boards indicating office numbers/ service centres/ directions	H						
	<b>2. Client Experience of care:</b> Monitor if client experience care survey is conducted and whether clients are provided with an opportunity to complain about or compliment the service received									
		3	The municipality's Complaint Management Standard Operating procedure is available	H						
		4	Compliments/ Complaints boxes are visibly placed at the main entrance/ exit	H						
		5	A standard poster appears above the compliment/ complaint box inviting clients to complain or to compliment the facility about their services	H						
	6	Records of complaints and actions taken are available in line with Complaint Management Standard Operating Procedure	H							
	7	The results obtained from the client compliment/ complaint is used to improve the quality of service								

Figure 2 illustrates the keys and descriptions of methods of measure and weight for completion of the tool.

**Figure 2: Keys and descriptions of methods of measure and weight**

Key and description of method of measure	
KEY	METHOD OF MEASURE
	Visual observations, e.g . Help desks, signage boards, Computers, telephones etc
	Check applicable documents e.g. Implementation plans, inspection checklists and/or reports, databases etc
	Test functionality of equipments/systems
Key Description of weight	
	= element is high priority, if not achieved, will impact service delivery negatively
	= element medium priority, can be achieved over time, service will not be immediately affected

Each element's performance is scored as either achieved or not achieved. In the case of achieved elements, a portfolio of evidence is produced by the municipality assessed to verify the achievement in the element. All elements are allocated a weight depending on the significance of the element and the extent of its need, in rendering EHS. The weight of each element is provided; yellow denotes high priority and blue medium priority as indicated in Figure 2. The method of measure is used to verify the portfolio of evidence. The NDoH relaxed the weighting criteria in the first round of assessments.

## 12.1 Environmental health services compliance rate

In 2016/17, all 52 municipalities were assessed using the standardised monitoring tool to measure quality of EHS. Municipalities first conducted self-assessments which was then followed by verification assessments in 52 districts conducted by the NDoH. Although an ideal compliance rate is 80%, municipalities were expected to score at least 51% as a minimum acceptable compliance rate.

In 2017/18, 20 municipalities were assessed by NDoH, and were chosen on the basis that they did not meet the minimum standard and performed below 60% in 2016/17.

Table 2 shows the municipal assessment results done by NDoH for the 20 municipalities in 2017/18 as compared to the 2016/17 assessment results.

Table 2: Assessment results by municipality, comparison between 2016/17 and 2017/18

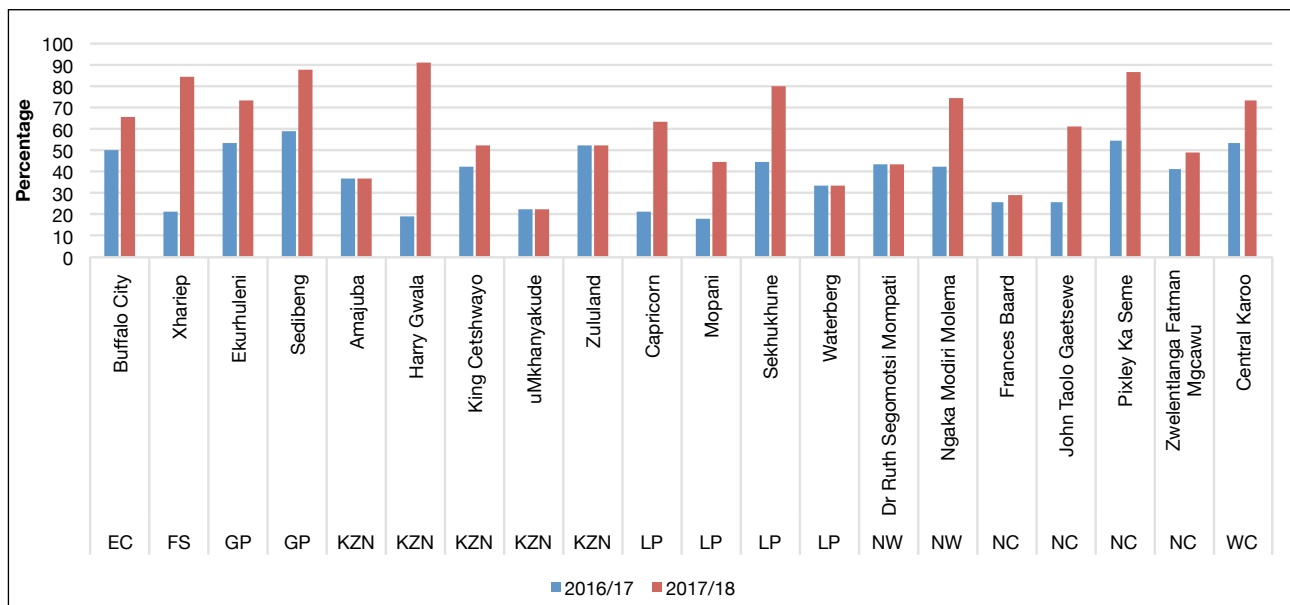
Province	Municipality	Element score 2016/17	Compliance rate (%) 2016/17	Element score 2017/18 (NDoH)	Compliance rate (%) 2017/18 (NDoH)
Eastern Cape	Buffalo City	122	50	150	66
Free State	Xhariep	52	21	198	84
Gauteng	Ekurhuleni	130	53	177	73
Gauteng	Sedibeng	144	59	199	88
KwaZulu-Natal	Amajuba	91	37	91	37
KwaZulu-Natal	Harry Gwala	45	19	223	91
KwaZulu-Natal	King Cetshwayo	103	42	111	52
KwaZulu-Natal	uMkhanyakude	54	22	54	22
KwaZulu-Natal	Zululand	126	52	126	52
Limpopo	Capricorn	51	21	153	63
Limpopo	Mopani	44	18	111	45
Limpopo	Sekhukhune	109	45	187	80
Limpopo	Waterberg	81	33	81	33
North West	Dr Ruth Segomotsi Mompati	105	43	104	43
North West	Ngaka Modiri Molema	101	42	178	75
Northern Cape	Frances Baard	45	26	59	29
Northern Cape	John Taolo Gaetsewe	63	26	149	61
Northern Cape	Pixley Ka Seme	133	55	188	87
Northern Cape	Zwelentlanga Fatman Mgcawu	118	41	120	49
Western Cape	Central Karoo	132	54	167	73

Source: EHS database.

Figure 3 shows the comparison of the performance of the 20 selected municipalities based on their performance of below 60% in 2016/17.

Seven of the 20 municipalities where follow-up assessments were done again scored below 51%. Fifteen managed to improve their performance with Harry Gwala in KwaZulu-Natal (KZN) improving significantly on its compliance rate from 19% in 2016/17 to 91% in 2017/18.

Figure 3: Comparison of compliance rate assessment results of the 20 assessed municipalities, 2016/17 and 2017/18



Source: EHS data base.

In 2017/18, a total of 45 of the 52 municipalities achieved an EHS compliance rate of 51% or more, and seven municipalities were non-compliant. The assessments were done by NDoH. The compliance rate varied from 91% in Harry Gwala to 22% in uMkhanyakude (both in KZN). Element total scores and EHS compliance rates of all 52 municipalities are also shown in Table 3.

**Table 3: Element total score and environmental health service compliance rate by district, 2017/18**

Province	Municipality	Element score 2017/18	Compliance rate 2017/18 (%)
Eastern Cape	Alfred Nzo	171	71
	Amathole	131	54
	Buffalo City	150	66
	Chris Hani	144	59
	Joe Gqabi	145	60
	Nelson Mandela Bay	139	57
	OR Tambo	147	60
	Sarah Baartman	151	70
Free State	Fezile Dabi	166	68
	Lejweleputswa	178	73
	Mangaung	171	70
	Thabo Mofutsanyane	203	86
	Xhariep	198	84
Gauteng	Ekurhuleni	177	73
	Johannesburg	148	72
	Tshwane	154	63
	Sedibeng	199	88
	West Rand	139	61
KwaZulu-Natal	Amajuba	91	37
	eThekweni	183	78
	Harry Gwala	223	91
	iLembe	146	60
	King Cetshwayo	111	52
	Ugu	183	75
	uMgungundlovu	152	67
	uMkhanyakude	54	22
	uMzinyathi	112	51
	uThukela	139	62
Zululand	126	52	
Limpopo	Capricorn	153	63
	Mopani	111	45
	Sekhukhune	187	80
	Vhembe	128	53
	Waterberg	81	33
Mpumalanga	Ehlanzeni	145	60
	Gert Sibande	144	59
	Nkangala	181	74
North West	Bojanala	147	60
	Dr Kenneth Kaunda	207	85
	Dr Ruth Segomotsi Mompati	104	43
	Ngaka Modiri Molema	178	75
Northern Cape	Frances Baard	59	29
	John Taolo Gaetsewe	149	61
	Namakwa	140	57
	Pixley Ka Seme	188	87
	Zwelentlanga Fatman Mgcawu	120	49
Western Cape	Cape Winelands	138	57
	Central Karoo	167	73
	Cape Town	146	60
	Eden	139	57
	Overberg	136	56
	West Coast	166	76

Source: EHS data base.

### Key findings

- ◆ Municipalities in the country have shown improvement in the EHS compliance rate since the assessment was started in 2015/16. It is, however, important to note that this was based on meeting the minimum set standards of 51%. Overall, more than 80% of municipalities do meet the minimum standards set at 51%, which suggests that systems are in place to render the EHS within their jurisdictions. However, EHS requires strengthening in order to ensure

effective rendering of services and the ability to respond to current and future environmental health challenges for protection of public health. It is important to note that the audits/assessments conducted were focussed on the management systems to support EHS delivery and did not extend to the operational areas where the actual service delivery on the ground is audited. That will be done at a later stage.

- ◆ The biggest challenge that municipalities face is meeting their obligations in terms of providing resources to EHS. These audits are able to reveal that priority is not given to this service. As a result of this the environmental health services provision is compromised in the process and this is evident in that none of the 52 municipalities are able to meet their staffing need as provided for in the National Environmental Health Policy, 2013.<sup>c</sup>

### Recommendations

- ◆ Municipalities need to plan and budget sufficiently to ensure that EHS are provided throughout the district and or metropolitan area.
- ◆ Municipalities must review and develop human resource plans to address staff shortages and to progressively meet the staffing norm of 1:10 000 EHPs per population as per the WHO and National Environmental Health Policy, 2013.
- ◆ Provinces should provide platforms for ensuring that best practices are shared and standardisation of EHS provision is encouraged.

## 12.2 Port health services compliance rate

Port health services (PHS) in South Africa is the domain of the National Department of Health.<sup>a</sup> This service is rendered at the points of entry (PoE) to the country by EHPs who are supported by other health professionals, such as doctors and nurses amongst others. Port Health Service is defined as the first line of defence to protect the citizens of South Africa and visitors against the health risks associated with cross border movement of people, conveyances, baggage, cargo, shipments and other imported consignments. The PHS is divided into regions; namely, central, northern and coastal regions and is managed by a regional director. There are a total of 72 PoEs in South Africa.

South Africa as a member state of the World Health Organization (WHO) is required to ensure full implementation of the International Health Regulations (IHR)<sup>d</sup> at its PoEs. The 2005 IHR is a generic set of internationally adopted Regulations of the World Health Assembly of the WHO, which is used to manage and regulate port health activities at PoEs. In terms of the IHR, countries should at all times have the capacity to, amongst others, ensure a safe environment for travellers using PoE facilities, which includes, potable water supplies, flight catering facilities, public washrooms, appropriate solid and liquid waste disposal services and any other potential risk areas.

The NDoH has committed to improving PHS in the country and to ensure that the services rendered are in line with the requirements stated under the IHR (2005).

The NDoH utilises the core capacity assessment tool<sup>e</sup> developed under the IHR to assess the PoEs on their levels of compliance with the requirements set.

The core capacity assessment tool is divided into three categories, namely:

- a) Core capacities for communication and co-ordination;
- b) Core capacities at all times; and
- c) Core capacities for public health emergencies of international concerns (PHEIC).

An example of the core capacity assessment tool is shown in Figure 4.

c National Department of Health. National Environmental Health Policy, GG No 37112 of 04 December 2013. Pretoria: National Department of Health. 2013.

d World Health Organization. International Health Regulations 2005. International Health Regulations 2005. World Health Organization. May 2005.

e World Health Organization. Assessment Tool for Core Capacity Requirements at Designated Airports, Ports and Ground Crossings, World Health Organization. 2009.

Figure 4: Example of the core capacity assessment tool

All groups of core capacities					
Co-ordination and communication					94%
Core capacity at all times					98%
Core capacity for responding to PHEICs					93%
<b>Final Score</b>					<b>95%</b>

Core Capacity Requirement	Assessment	Score	Overall Score	Observations	
<b>A) Core capacity requirements for coordination, communication of event information and adoption of measures (in regard to activities concerning designated airports, ports and ground crossings, according to Annex 1A)</b>			<b>94%</b>	Observations	
<b>1. International communication link with competent authorities at other points of entry</b>		100%	100%	1. The information is available and documented	
Competent authority at each point of entry has current contact details of officers in charge of international communication with other points of entry abroad and means of communication and procedures are available to inform relevant public health measures taken pursuant to the International Health Regulations, such as: – communication with competent authorities at other points of entry, internationally, to provide relevant information regarding evidence found and control measures still needed on arrival of affected conveyance.	Y	100%			
<b>2. National communication link between competent authorities at points of entry and health authorities at local, intermediate and national levels</b>		100%		100%	The information is available, documented. Updated & tested for: 1. National IHR Focal Point 2. Provincial DOH 3. National DOH 4. Other Land Crossing POE 5. Government Ministries 6. Clearing Agencies 7. Government Authorities 8. Local Municipality The information is available, documented. Updated & tested for:
Local, intermediate and national levels (including National IHR Focal Point) have current contact details of competent authorities at points of entry and current, regularly updated, documented and tested procedures, including any Memorandum of Understanding – MoU and protocols are in place for routine and urgent communication and collaboration during a public health emergency of international concern with: 1) the competent authority at other points of entry and health authorities at local, intermediate and national levels; 2) other relevant government ministries, agencies, government authorities and other partners involved with points of entry activities	Y	100%			
Competent authority at each point of entry has current contact details of officers within local, intermediate and national levels, including contact details of National IHR Focal Point and means of communication and procedures are available to inform relevant public health measures taken pursuant to the International Health Regulations. Such as: – To communicate with NFP in order to inform WHO within 24 hours of receipt of evidence, as manifested by exported or imported: 1) human cases; 2) vectors which may carry infection or contamination, or 3) goods that are contaminated, that may cause international disease spread – report all available essential information on event occurring at point of entry by competent authority to health authority at local, intermediate or national level for public health assessment, care and response. – for communication with competent authorities at other points of entry, nationally, to provide relevant information regarding evidence found and control measures needed on arrival of affected conveyance.	Y	100%	100%	1. The Competent authority has a contact details lists of local officers 2. Staffs communicate with CDC within the district in case of any outbreak 3. Staffs conduct EHD regarding contaminated consignments 4. Staff communicate with BCOC with any public health risk	
<b>3. Direct operational link with other senior health officials</b>		100%	100%	1. The Standard Operational Procedure is available 2. List and contact details of other Senior health officials is available and is used by staff 3. Written MoU	
Current, regularly updated, documented and tested procedures, including any MoU and protocols, for direct operational link between local point of entry competent authority officer and other senior health officials, are in place for rapid decision approval, risk assessment and implementation of containment and controls measures	Y	100%			
<b>4. Communication link with conveyance operators</b>		100%	100%	Such information is available at the Harbour	
Current contact details of conveyance operators (including its agents or legal representatives at shore), means of communication and procedures are available for advance notice of application of control measures, for issuance of Ship Sanitation Certificates and for receipt of other health documents and conveyance operators provided with current contact details of competent authority.	Y	100%			

## Section A: Environmental health

5. Communication link with travellers for health related information		100%	1. Prior arrangement are made by travellers to BCOCC through fax or e-mails 2. The information is then disseminated to all officials
Current contact details of competent authority at point of entry and means of communication and procedures are available for notice of application of control measures, for receipt of health documents and to provide health related information for travellers.	Y	100%	

Subsequent to the transfer of PHS from the Provincial Departments of Health to the NDoH, the NDoH conducted a baseline assessment of 45 PoEs during 2016/17 to assess the compliance rate of PoEs with the IHR 2005 core capacity requirements and the Environmental Health Norms and Standards. Action plans were developed by each PoE to address all the gaps identified during the assessment. Most of the baseline assessments were conducted in the form of self-assessments by the Regional Directors, but a few PoE assessments were done by the Port Health Managers based in the NDoH. In 2017/18 a total of 34 PoEs were identified for assessment by NDoH to re-assess the PHS compliance rate and progress on the implementation of action plans developed. For 2017/18, a compliance rate target of 80% for the core capacity assessment was set and 51% for the Environmental Health Norms and Standards.<sup>f</sup>

Table 4 shows the total scores by PoE for the baseline IHR 2005 core capacity and Environmental Norms and Standards assessments of 45 PoEs done in 2016/17.

**Table 4: Baseline International Health Regulations 2005 core capacity assessment and Environmental Norms and Standards assessment scores by point of entry, 2016/17**

Name of Point of Entry	Baseline core capacity assessment compliance rate 2016/17 (%)	Baseline norms and standards assessment compliance rate 2016/17 (%)
<b>Northern Region</b>		
Pilanesberg International Airport	92	69
Kopfontein Ground Crossing	85	65
Skilpadshek Ground Crossing	85	69
Ramatlabama Ground Crossing	84	80
Swartkopfontein Ground Crossing	0	15
Derdepoort Ground Crossing	0	19
Polokwane International Airport	83	73
Stockpoort Ground Crossing	0	46
Platjan Ground Crossing	0	19
Point Drift Ground Crossing	0	27
Beit Bridge Ground Crossing	94	73
Groblersbrug Ground Crossing	61	92
Pafuri Ground Crossing	0	27
Kruger International Airport	76	50
Lebombo border Ground Crossing	74	42
Mananga Ground Crossing	36	88
Mahamba Ground Crossing	89	88
Jeepes Reef Ground Crossing	85	81
Osheek Ground Crossing	74	46
<b>Coastal Region</b>		
King Shaka International Airport	71	38
Durban Harbour	84	46
Richards Bay Harbour	86	58
Cape Town International Airport	67	46
Cape Town Harbour	70	54
Qacha's Nek Ground Crossing	50	19
Port Elizabeth Harbour	80	42
East London Harbour	65	31
Golela Border Ground Crossing	99	58
Kosi bay Ground Crossing	87	50
Port Of Ngqura Harbour	80	42
Saldanha Bay Harbour	70	54
Port Elizabeth International Airport	87	73
Mossel Bay Harbour	71	54

<sup>f</sup> National Department of Health. Annual Performance Plan, 2016/17–2018/19. Pretoria: National Department of Health. 2016.



Name of Point of Entry	Baseline core capacity assessment compliance rate 2016/17 (%)	Baseline norms and standards assessment compliance rate 2016/17 (%)
<b>Central Region</b>		
Caledonspoort	92	54
Van Rooyenshek	77	35
Bram Fisher International Airport	81	73
Ficksburg ground crossing	95	50
Maseru Bridge	93	54
Violsdrift Ground Crossing	58	65
Upington International Airport	95	69
Nakop Ground Crossing	93	88
OR Tambo International Airport	94	65
Lanseria International Airport	98	81
Waterkloof Air force Base	72	0
City Deep container Depot	97	92

Source: PHS data base.

Table 5 shows the scores for the follow-up core capacity and Environmental Norms and Standards assessments done in the 34 PoEs in 2017/18.

**Table 5: Core capacity and Environmental Norms and Standards re-assessment scores by point of entry, 2017/18**

Name of Point of Entry	Core capacity re-assessment score, 2017/18 (%)	Environmental Norms and Standards score, 2017/18 (%)
<b>Central Region</b>		
Caledonspoort	92	54
Van Rooyenshek	77	35
Bram Fisher International Airport	81	73
Ficksburg ground crossing	95	50
Maseru Bridge	93	54
Violsdrift Ground Crossing	58	65
Upington International Airport	95	69
Nakop Ground Crossing	93	88
OR Tambo International Airport	94	65
Lanseria International Airport	98	81
Waterkloof Air force Base	72	0
City Deep Container Depot	97	42
Lanseria International Airport	96	76
Upington International Airport	83	76
Nakop	84	88
Ficksburg	45	31
OR Tambo International Airport	57	42
Maseru Bridge	91	46
Caledonspoort	68	53
<b>Northern Region</b>		
Mahamba	85	69
Mananga	42	49
Groblersbrug	41	31
Beit Bridge	68	73
Pilanesberg International Airport	69	62
Kopfontein	54	38
Skilpadshek	75	77
Kruger International Airport	81	65
Lebombo border Ground Crossing	70	57
<b>Coastal Region</b>		
Durban Harbour	61	61
King Shaka International Airport	80	46
Port Elizabeth International Airport	83	50
Golela	95	92
Kosi Bay	96	76

Source: PHS data base.

### Key findings

Some of the major constraints identified during the assessment at the PoEs include:

- ◆ Shortage of resources, e.g. infrastructure, Information and Communication Technology connectivity (mainly at the Land Borders) and Human Resources to cover all the operational hours of the PoEs.
- ◆ Lack of signage to the Port Health Offices which hampers access by the public was identified as a challenge during the assessment.
- ◆ Lack of monitoring plans to guide the inspection of the PoEs by PHS is another challenge which was identified.
- ◆ Although there are proper arrangements in place, PoEs have no memorandum of understanding with the nearest hospital and emergency services as required by the IHR (2005) which leads to non-compliance scorings during the assessments.

### Recommendations

- ◆ Plans has been developed by the PoEs, regions and NDoH to address the gaps identified by the assessments. This includes a plan to ensure that all port health offices are easily identifiable by means of signage. These will be closely monitored on a quarterly basis to ensure that compliance is achieved at all PoEs.