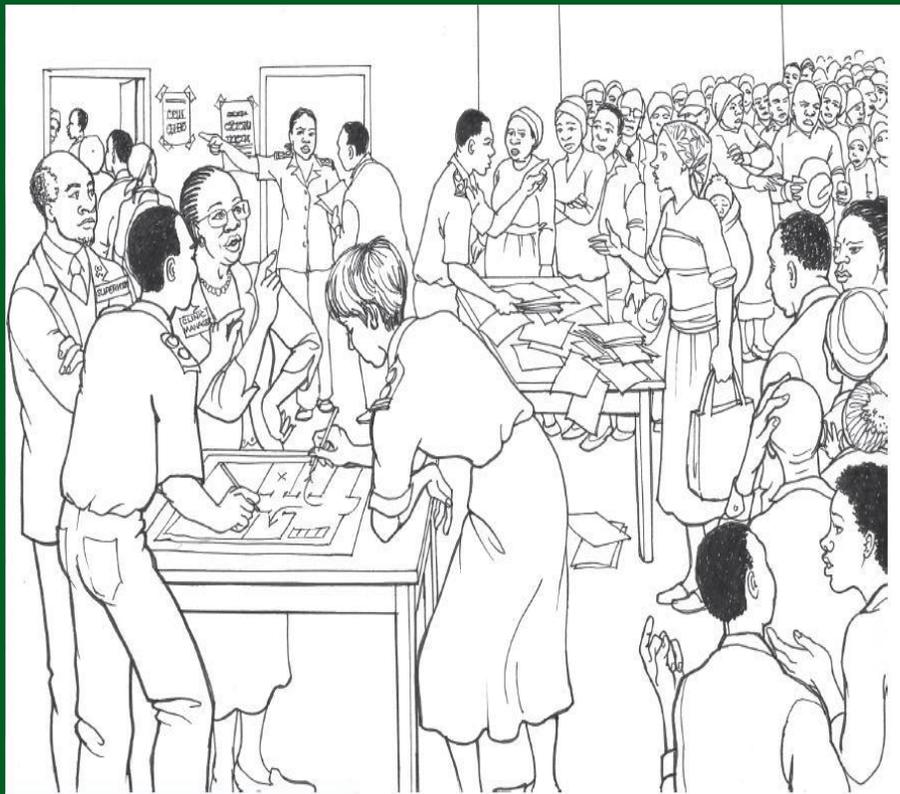


Draft National Guideline for Management of Patient Waiting Times at Health Facilities



health

Department:
Health
REPUBLIC OF SOUTH AFRICA



Acknowledgements



Patient waiting times in health facilities are internationally recognised as a key indicator of the functional status of health system. It is a very tangible factor that impacts on patient's perception and experience of care.

Long patient waiting times are common in health facilities in South Africa and have clearly been identified as a key health system challenge. Patient waiting time is therefore included in the six Ministerial priority areas for patient-centred care in striving towards the goal to achieve Universal Health Care and implement National Health Insurance.

The purpose of this guideline is to provide managers in the health system with a standardised methodology to measure and analyse patient waiting times and to use the analyses to identify specific challenges that require interventions to improve the waiting time spent by patients at health facilities. This guideline further provides recommendations for interventions to alleviate long patient waiting times. We trust that this guideline will be beneficial to health care providers and users of the health system in delivering services that meet the Norms and standards regulations applicable to different categories of health establishments.

Ms Jeanette Hunter (DDG: Primary Health care and Hospital systems) led the development and completion of this guideline. Ms Annie Jautse developed the first draft. The final document has been compiled with technical support from Ms Annie Jautse, Dr Shaidah Asmall, Dr Ozayr Mahommed and Ms Ronel Steinhöbel.

I sincerely thank the national Department of Health managers and provincial department of health managers who provided insightful comments and direction to the final guideline.

MS MP MATSOSO

DIRECTOR-GENERAL: HEALTH

DATE:

TABLE OF CONTENT

1. INTRODUCTION	4
2. FRAMEWORK FOR THIS GUIDELINE	5
2.1 Purpose.....	5
2.2 Legislative and Regulatory mandates.....	5
2.3 Structure of the framework related to service delivery platform	6
3. MEASUREMENT OF PATIENT WAITING TIMES	7
3.1 Measurement of patient waiting times in Primary Health Care facilities	7
3.1.1 Methodology	7
3.1.2 Analysis and Results.....	10
3.1.3 Interventions	12
3.1.4 Compile a Quality Improvement plan	12
3.2 Measurement of patient waiting times in Hospitals	13
3.2.1 Methodology	13
3.2.2 Analysis and Results.....	17
3.2.3 Interventions	19
3.2.4 Compile a Quality Improvement plan	19
4. RECOMMENDED INTERVENTIONS TO ALLEVIATE LONG WAITING TIMES	20
4.1 Patient record management	20
4.2 Facility navigation.....	21
4.4 Clinical services organisation	21
4.5 Referrals	22
4.6 Communication	22
4.7 Human Resource management.....	22
5. REFERENCES	22

LIST OF FIGURES

Figure 1: Service across different levels within the Health Service Delivery Platform	6
Figure 2: PWT Monitoring Tool for PHC facilities: 8 hour service and MOU	9
Figure 3: PWT Monitoring Tool for PHC facilities: Emergency Unit	9
Figure 4: PWT Monitoring Tool for hospitals: Admissions	14
Figure 5: PWT Monitoring Tool for hospitals: Emergency unit	15
Figure 6: PWT Monitoring Tool for hospitals: OPD	16

LIST OF TABLES

Table 1: Sample size estimates for patient waiting time survey	8
Table 2: Format to summarise patient waiting time survey results for PHC facilities	11
Table 3: Format to summarise patient waiting time survey results for hospitals	18

LIST OF APPENDICES

Appendix A: Patient Waiting Time Monitoring Tool for PHC facilities: 8 hour service area.....	24
Appendix B: Patient Waiting Time Monitoring Tool for CHC: 24 Hour Emergency Unit.....	25
Appendix C: Patient Waiting Time Calculation Tool: PHC facilities	26
Appendix D: Patient Waiting Time Monitoring Tool for hospitals: Admissions Unit.....	27
Appendix E: Patient Waiting Time Monitoring Tool for hospitals: Emergency Unit	28
Appendix F: Patient Waiting Time Monitoring Tool for hospitals: OPD.....	29
Appendix G: Patient Waiting Time Calculation Tool: Hospitals	30

1. INTRODUCTION

South Africa has a vision of Health for All as expressed in the National Development Plan 2030. This vision includes the provision of health services to patients in a dignified manner. Thus, management of patient waiting times (PWT) is important as a key contributory factor to patient's perception of the experience of care provided by health system.¹ PWT is a reflection of the responsiveness of the health system to the needs and demands for these services especially as South Africa strives towards the provision of Universal Health Care through the introduction of the National Health Insurance as a vehicle to achieve this.

PWT is defined as the time interval for which one has to wait after placing a request for an action or a service and before the action or service actually occurs. In terms of health services, this would relate to time spent receiving services including health promotion and prevention messaging, clinical consultations and the receiving of treatment. Total time spent in a facility is disaggregated into PWT and clinical service time; this ratio is a good indicator of clinical efficiency.

Long PWT are common in health facilities in South Africa and has clearly been identified as a key health system challenge.² PWT is therefore included in the six Ministerial priority areas for patient-centred care. According to the National Health Care Facilities Baseline Audit conducted in 2012, the average score for the country for PWT was 68%. Hospitals fared better, obtaining an average of 84% while Primary Health Care (PHC) facilities obtained an average of 66%. There were significant differences in the percentage scores obtained per province for PWT which ranged from 40% to 69%.³ Scores obtained for the 2017/18 financial year on the Ideal Clinic Framework for the sub-component *Patient Waiting Time* was 73%.⁴

The measurement and regular reporting of PWT highlights the bottle-necks or delays, enables monitoring of the effectiveness of the health system's performance and assists in designing interventions to overcome these challenges.

This guideline sets out the methodology for measurement and analysis of PWT in facilities. A web-based information system for PWT has been developed on the Ideal Health Facility website to provide the analysis and results of PWT surveys. This will assist in determining the bottle-

necks within each facility and/or unit and in developing an appropriate intervention to improve PWT.

(Proposed process to be followed for consultation): The first draft guideline was developed and circulated to provincial heads of health with a request to provide inputs. Presentations were made at the Management Committee of the National Department of Health as well as the National Health Information Systems for South Africa Committee during. Inputs received on consultations were considered and relevant edits were done to develop the final guideline.

2. FRAMEWORK FOR THIS GUIDELINE

2.1 Purpose

The purpose of this guideline is to provide managers in the health system with:

- the methodology to measure PWT,
- methods to analyse the results of the PWT survey,
- interventions to alleviate long PWT.

2.2 Legislative and Regulatory mandates

This guideline is underpinned by key South African Legislative and Regulatory mandates and is aligned to key strategies and efforts to achieve improved health. These include the following:

- South African Constitution, 1996 (Act 108 of 1996): Section 27 of the Bill of Rights states that everyone has the right to have access to health care services. The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of this right.
- National Health Act, 2003 (Act 61 of 2003): The Act stipulates that a national health system must provide in an equitable manner the population of the Republic with the best possible health services that available resources can afford.
- Norms and standards regulations applicable to different categories of health establishments, February 2018: These regulations were published in accordance with Section 78 of the National Health Act. Section 22 of the Regulations sets the standards for monitoring PWT.

2.3 Structure of the framework in relation to service delivery platform

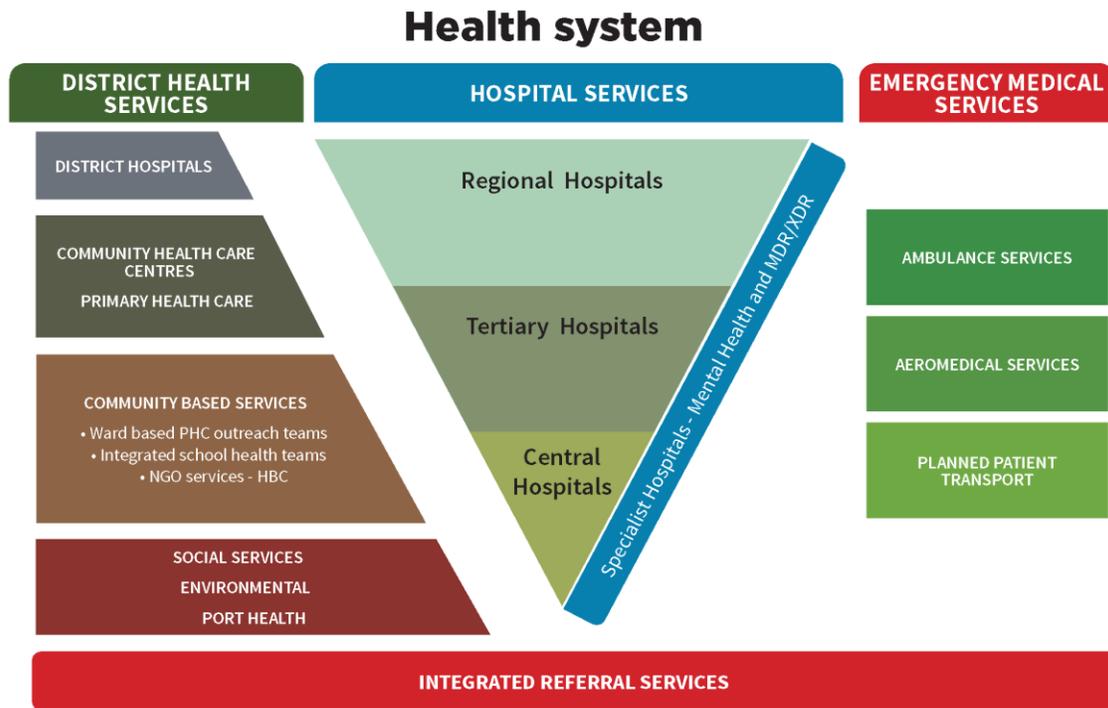


Figure 1: Service across different levels within the Health Service Delivery Platform

The structure depicted in **Figure 1** of services delivered within the health system clearly reflects district health service and hospital services as the key components of the service delivery platform. District health services consist of primary health care (PHC) facilities and district hospitals. PHC facilities consist of PHC clinics and Community Health Care centres (CHCs). Hospital services include the various levels of hospitals as differentiated by the services that they render. This framework provides guidance for the measurement and management of PWT across the components of the health service delivery platform, i.e. PHC facilities and hospitals.

The measurement methodology and analyses of results are different for PHC facilities and hospitals and will therefore be discussed in separate sections.

3. MEASUREMENT OF PATIENT WAITING TIMES

Each facility must develop a standard operating procedure for the Management of PWT that is aligned to this guideline and should outline the following:

- time frames to conduct PWT surveys,
- units where the survey will be conducted (applicable for hospitals),
- numbers of patients to be surveyed in the facility/every unit in the hospital
- PWT monitoring tools to be used,
- method to analyse PWT surveys, and
- designate staff members in specific roles that will be responsible to oversee and conduct the PWT survey.

The methodology outlined in sections 3.1 and 3.2 below is recommended for facilities that do not have an electronic PWT management system. Facilities that have an electronic PWT management system must verify that the system will provide the necessary information as required in this guideline.

3.1 Measurement of patient waiting times in Primary Health Care facilities

3.1.1 Methodology

- Step 1: Schedule a day in quarter 2 and quarter 4 of every financial year to conduct the PWT survey.
- Step 2: Determine the sample size of patients to be surveyed. To ensure that the sample size lay within the 95% Confidence Interval, use the World Health's Organizations' sample size determination in health studies practical manual to determine the sample size.⁵ See **Table 1**. For CHC's, the PWT survey must be conducted at the 8 hour service area, the Emergency Unit and the Midwife Obstetric Unit (MOU), thus the headcount per day of each area/unit is used to determine the sample size for each area/unit separately.

Average head count per day	Sample size	Average head count per day	Sample size
10	10	700	248
20	19	800	260
30	28	1000	278
50	44	1200	291
75	63	1500	306
100	80	2000	322
150	108	2500	333
200	132	3500	346
250	152	5000	357
300	169	7500	365
400	196	10000	370
500	217	> 10000	384
600	234		

Table 1: Sample size estimates for patient waiting time survey

- Step 3: Make copies of the PWT Monitoring Tool, **Appendix A** (8 hour service and MOU) and **Appendix B** (Emergency unit), according to the number of patients to be surveyed as determined in Step 2. Complete the name of the facility, the date of the PTW survey and the number of the survey on every form. See **Figure 2 and 3**. The red circles indicate areas that need to be completed by the facility.
- Step 4: On the day of the survey use systematic sampling to select the patients according to the sample size that was determined in Step 2. For example if the daily headcount of the area/unit is 400, divide the daily headcount by the sample size (according to Table 1), i.e. $400 \div 196 = 2.04$. The first patient will be selected randomly; thereafter every 2nd patient will be selected for the survey if the sample size is 196.
- Step 5: The queue marshal (or designated staff member) must hand a copy of the PWT Monitoring Tool to every patient with time of entry into facility recorded on this Tool, see **Figure 2 and 3**.

Name of Facility: Clinic A		No: 1						
Date of survey: 2018/12/08								
Mark the condition for which patient is attending with an "X"								
	Acute	Chronic		Mother and child				
Minor ailments <input checked="" type="checkbox"/>	Adult	HIV	TB	NCD	Mental Health	Well baby/ EPI	Family planning	ANC/ PNA
	Children (IMCI)							
MOU								
Area		Time						
Time patient enters PHC facility ¹		09			10			
Time patient registers at reception desk		11			20			
Time patient is allocated patient record		12			00			
Area	Type of health care provider	Start time		End time				
Vital signs		12	05	12	10			
1 st consultation	Nurse	12	30	12	45			
2 nd consultation ²	Allied Health	14	00	14	30			
3 rd consultation ²	Medical officer	Hours	Minutes	Hours	Minutes			
Pharmacy		Hours	Minutes	Hours	Minutes			
Time patient departs PHC facility ³				14	30			

Figure 2: PWT Monitoring Tool for PHC facilities: 8 hour service and MOU

Name of facility: CHC B		No: 1			
Date of Survey: 2018/12/07					
Area		Time			
Time patient enters unit ¹		10		00	
Time patient is triaged		10		10	
Time patient registers at reception desk		11		00	
Area	Type of health care provider	Start time		End time	
Vital signs		11	30	11	35
1 st consultation	Medical Officer	12	00	12	30
2 nd consultation ²		Hours	Minutes	Hours	Minutes
3 rd consultation ²		Hours	Minutes	Hours	Minutes
X-rays					
1 st consultation ²		13	00	13	30
2 nd consultation ²		Hours	Minutes	Hours	Minutes
2 nd consultation ²		Hours	Minutes	Hours	Minutes
Imaging (ultrasound)					
1 st consultation ²		Hours	Minutes	Hours	Minutes
2 nd consultation ²		Hours	Minutes	Hours	Minutes
3 rd consultation ²		Hours	Minutes	Hours	Minutes
Pharmacy					
Observation (12 to 24 hour observation) ³		14	00	21	00
Time patient departs unit ⁴				Hours	Minutes

Figure 3: PWT Monitoring Tool for PHC facilities: Emergency Unit

- Step 6: Reception staff (or designated staff member) must place the PWT Monitoring Tool in the records of those patients that were selected to be surveyed.
- Step 7: Each health care provider that interacts with the patient must record the time the patient enters and leaves the service point, i.e. if referred from medical officer or nurse to lay counsellor or allied health services (Rehab, social worker, nutritionist, etc). Also note down the type of health care provider that provided the service. See **Figure 2 and 3**.
- Step 8: At the last service point, record the time the patient leaves the facility. Note: if patient is to return to facility for follow-up appointments then this time of departure should be recorded at reception when the patient makes their appointment. See **Figure 2**. If the patient was seen at the Emergency Unit and is kept for observation, the time the patient's observation is completed is recorded. See **Figure 3**.
- Step 9: At the end of the day, the completed PWT Monitoring Tool must be collected from the records and reconciled from each area/unit to ensure that all the surveys are available for analysis.
- Step 10: All returns to be captured by the designated member using the PWT Module on the Ideal Health Facility web-based information system (www.idealhealthfacility.gov.za).

3.1.2 Analysis and Results

- Step 11: Analyse the PWT data using the PWT Calculation Tool, **Appendix C**. If the web-based information system is used, the times will be auto generated.
- Step 12: Summarise the results using **Table 2**.

Name of Facility: _____	AVG Time / sample size 8 Hour service area			AVG Time / sample size Emergency unit			AVG Time / sample size MOU			AVG Time/ sample size for the Facility		
Financial year: _____	Q2	Q4	AVG Fin Year	Q2	Q4	AVG Fin Year	Q2	Q4	AVG Fin Year	Q2	Q4	AVG Fin Year
Description												
1. Sample size												
2. Average clinical service time												
Vital signs												
Acute stream												
Mother and child stream												
Chronic stream												
Medical officer												
Allied Health services												
Pharmacy												
Imaging												
X-rays												
Observation												
3. Average PWT												
Registration												
Patient record												
Triage												
Vital signs												
Acute stream												
Mother and child health stream												
Chronic stream												
Medical officer												
Allied Health services												
Pharmacy												
Imaging												
X-rays												
Observation												
4. AVG Time spent												

Table 2: Format to summarise patient waiting time survey results for PHC facilities

Step 13: Compare the PWT for each quarter with the previous quarter to establish trends and need for improvement.

Step 14: If the average time spent in the facility by patients exceeds three hours, establish which service areas are causing the bottle-neck by using the National Quality Improvement Guideline 2012 (www.idealhealthfacility.co.za).

3.1.3 Interventions

Step 15: Address identified deficiencies in bottle-neck areas. See section 4.

3.1.4 Compile a Quality Improvement plan

Step 16: The Quality Improvement Plan (QIP) should include the following

- Summary of PWT results, see Table 2.
- Update the existing facility QIP (see National Quality Improvement Guideline and use the Quality Improvement template).
- Ensure that the QIP highlights the following:
 - identified bottle necks
 - suggested interventions with time frames for implementation

3.2 Measurement of patient waiting times in Hospitals

The measurement of hospitals will be confined to:

- i) inpatient admission,
- ii) outpatients department (OPD) and,
- iii) Emergency Unit

3.2.1 Methodology

- Step 1: Schedule a day in quarter 2 and quarter 4 of every financial year to conduct the PWT survey.
- Step 2: Determine the sample size of patients to be surveyed. To ensure that the sample size lay within the 95% Confidence Interval, use the World Health's Organizations' sample size determination in health studies practical manual to determine the sample size.⁵ See **Table 1**. For hospitals the PWT survey must be conducted at the inpatient admissions unit, the OPD and the Emergency Unit thus the headcount per day of each section/unit is used to determine the sample size for each section/unit separately. PWT in large hospitals with multiple OPD sections e.g. Medical, Surgical, ENT, Cardiology, Paediatrics must be determined for each OPD.
- Step 3: Make copies of the PWT Monitoring Tool, **Appendix D** (Admissions Unit), **Appendix E** (OPD) and **Appendix F** (Emergency Unit) according to the number of patients to be surveyed as determined in Step 2. Complete the name of the facility the date of the PTW survey and the number of the survey on every form. See **Figure 4, 5 and 6**. The red circles indicate areas that need to be completed by the facility.
- Step 4: On the day of the survey use systematic sampling to select the patients according to the sample size that was determined in Step 2. For example if the daily headcount of the area/unit is 400, divide the daily headcount by the sample size (according to Table 1), i.e. $400 \div 196 = 2.04$. The first patient will be selected randomly; thereafter every 2nd patient will be selected for the survey if the sample size is 196.

Step 5: The queue marshal (or designated staff member) must hand a copy of the PWT Monitoring Tool to every patient with time of entry into the unit recorded on this Tool, see **Figure 4, 5 and 6**.

Name of facility: Hospital C		No: 1	
Date of Survey: 2019/01/08			
Area	Time		
Time patient enters unit ¹	08	30	
Time patient registers at admission/reception desk	08	50	
Area	Start Time		End Time
Time patient completes vital signs	09	00	09:10
Area	Time		
Time patient allocated a designated bed in the ward ²	12	00	

Figure 4: PWT Monitoring Tool for hospitals: Admissions

Name of facility: Hospital G		No: 12			
Date of Survey: 2019/01/09					
Area	Time				
Time patient enters unit ¹	12		00		
Time patient is triaged	12		10		
Time patient registers at reception desk	12		30		
Area	Type of health care provider	Start time		End time	
Vital signs		13	00	13	05
Medical officer					
1 st consultation		14	00	14	30
2 nd consultation		Hours	Minutes	Hours	Minutes
3 rd consultation		Hours	Minutes	Hours	Minutes
Medical specialist					
1 st consultation	Oncology	16	30	16	45
2 nd consultation		Hours	Minutes	Hours	Minutes
3 rd consultation		Hours	Minutes	Hours	Minutes
X-rays					
1 st consultation		15	00	15	30
2 nd consultation		Hours	Minutes	Hours	Minutes
2 nd consultation		Hours	Minutes	Hours	Minutes
Imaging (ultrasound and scans)					
1 st consultation		Hours	Minutes	Hours	Minutes
2 nd consultation		Hours	Minutes	Hours	Minutes
3 rd consultation		Hours	Minutes	Hours	Minutes
Pharmacy					
Observation (12 to 24 hour observation)		17	00	23	00
Time patient departs unit ³				Hours	Minutes

Figure 5: PWT Monitoring Tool for hospitals: Emergency unit

Name of facility: Hospital D		No: 13			
Name of OPD: Oncology					
Date of Survey: 2019/01/11					
Area	Time				
Time patient enters unit ¹	12		05		
Time patient registers at reception desk	13		00		
Area	Type of health care provider	Start time		End time	
Vital signs		13	20	13	30
Medical officer					
1 st consultation		14	00	14	20
2 nd consultation		Hours	Minutes	Hours	Minutes
3 rd consultation		Hours	Minutes	Hours	Minutes
Medical specialist					
1 st consultation ²	Neurology	15	30	15	45
2 nd consultation ²		Hours	Minutes	Hours	Minutes
3 rd consultation ²		Hours	Minutes	Hours	Minutes
X-rays					
1 st consultation ²		Hours	Minutes	Hours	Minutes
2 nd consultation ²		Hours	Minutes	Hours	Minutes
2 nd consultation ²		Hours	Minutes	Hours	Minutes
Imaging (ultrasound and scans)					
1 st consultation ²		14	00	14	30
2 nd consultation ²		Hours	Minutes	Hours	Minutes
3 rd consultation ²		Hours	Minutes	Hours	Minutes
Laboratory					
1 st consultation ²		15	00	15	15
2 nd consultation ²		Hours	Minutes	Hours	Minutes
3 rd consultation ²		Hours	Minutes	Hours	Minutes
Support Services (allied health services including Oral health, social worker, nutritionist etc.)					
1 st consultation ²		Hours	Minutes	Hours	Minutes
2 nd consultation ²		Hours	Minutes	Hours	Minutes
3 rd consultation ²		Hours	Minutes	Hours	Minutes
Pharmacy		16	00	16	30
Time patient departs unit³				17	00

Figure 6: PWT Monitoring Tool for hospitals: OPD

Step 6: Reception staff (or designated staff member) must place the PWT Monitoring Tool in the records of those patients that were selected for the survey.

Step 7: Each health care provider that interacts with the patient must record the time the patient enters and leaves the service point, i.e. if referred from medical officer to medical specialist, allied health services (Rehab, social worker, nutritionist, etc),

diagnostic services (radiology, imaging services, laboratory) and pharmacy. Every touch point must record start and end time of each interaction with the patient.

- Step 8: Record the time at the last touch point as defined below.
- i. Admission: all administrative processes completed and patients allocated a designated bed in the ward. See **Figure 4**.
 - ii. OPD: the pharmacy is usually the exit touch point after patient has made their return appointment at the designated reception or administrative point. See **Figure 5**.
 - iii. Emergency unit: on discharge to go home or transfer from Emergency unit into inpatient ward or admission for observations within the Emergency unit. See **Figure 6**.
- Step 9: At the end of the day, the completed PWT Monitoring Tool must be collected from the records by the designated staff member and reconciled to ensure that all copies are returned for analysis.
- Step 10: All returns to be captured by the designated member using the PWT Module on the Ideal Health Facility web-based information system (www.idealhealthfacility.gov.za).

3.2.2 Analysis and Results

- Step 11: Analyse the PWT data using PWT Calculation Tool, Annexure B. If the web-based information system is used, the times will be auto generated.
- Step 12: Summarise the results using Table 3

Name of Facility: _____	AVG Time / sample size Admission			AVG Time / sample size Name of OPD: _____*			AVG Time / sample size Emergency Unit			AVG Time / sample size for the Facility		
Financial year: _____	Q2	Q4	AVG Fin Year	Q2	Q4	AVG Fin Year	Q2	Q4	AVG Fin Year	Q2	Q4	AVG Fin Year
DESCRIPTION												
1. Sample size												
2. Average clinical service time												
Vital signs												
Medical officer												
Medical specialist												
Allied Health services												
Pharmacy												
Imaging												
X-rays												
Laboratory												
Observation												
3. Average PWT												
Registration												
Triage												
Vital signs												
Medical officer												
Allied Health services												
Pharmacy												
Imaging												
X-rays												
Laboratory												
Observation												
Bed allocated												
4. AVG Time spent												

* Note: Add the name of the OPD and additional columns for OPD according to the number of OPDs in the facility

Table 3: Format to summarise patient waiting time survey results for hospitals

Step 13: Compare the PWT for each quarter with the previous quarter to establish trends and need for improvement.

Step 14: If the average time spent in each of the identified service areas by patients exceeds three hours, establish what and where the bottle-necks are in each area by using the National Quality Improvement Guideline.

3.2.3 Interventions

Step 15: Address identified deficiencies in bottle-neck areas, see section 4.

3.2.4 Compile a Quality Improvement Plan

Step 16: The Quality Improvement Plan (QIP) should include the following

- Summary of PWT results, see Table 2.
- Update the existing facility QIP (see National Quality Improvement Guideline and use the Quality Improvement template).
- Ensure that the QIP highlights the following:
 - identified bottle necks
 - suggested interventions with time frames for implementation

4. RECOMMENDED INTERVENTIONS TO ALLEVIATE LONG WAITING TIMES

The PWT survey analysis assists in identifying specific bottleneck areas which require intervention to ensure that the health facility functions optimally to deliver services within acceptable timeframes. Health systems analysis has over time identified certain factors that contribute to these long PWT and thus below suggested interventions that could assist a facility to improve their PWT.

4.1 Patient record management

To reduce PWT, records should be retrieved in the shortest possible time. The following principles should be instituted to ensure the quick retrieval of patient records:

- Single record storage room: Patient records should ideally be stored in a single record storage room that is in close proximity to the patient registration desk.
- Effective and efficient filing system refer to: The National Guideline for filing, archiving and disposal of patient records in PHC facilities to file, archive and dispose patient records that is in line with the National Archives and Records Service of South Africa Act, 1996 (Act 43 of 1996). The same principles can be applied for hospitals.
- Archiving and disposal of patient records refer to : The National Guideline for filing, archiving and disposal of patient records in PHC facilities provides guidelines for PHC facilities to file, archive and dispose patient records that is in line with the National Archives and Records Service of South Africa Act, 1996 (Act 43 of 1996). The same principles can be applied for hospitals.
- Pre-retrieval of patient records with booked appointments: Where applicable, appointments must be scheduled for patients. The records for patients with appointments must be pre-retrieved not later than a day before the patient's appointment.
- Electronic patient record information management system: Assists with retrieval of patient records. The system also provides a back up to ensure that patient record is not lost.
- Electronic patient record: prevent loss of records and easy access.

4.2 Facility navigation

- Signage
Adequate and appropriate signage should be provided. This signage should be colour coded and provided in different local languages to ensure that the vast majority of the user of the service can find their way around the facility.
- Help Desk
Ensure consistent availability of a help desk official at the help desk to provide required information to users.
- Queue marshals
Queue marshals facilitate movement of patients in waiting areas.

4.3 Facility infrastructure design

The design of the facility should enhance the lean principles of patient flow to ensure patients can access services in a unidirectional manner thus saving time in moving from one service point to the next.

4.4 Clinical services organisation

- Integrated Clinical Service Management (ICSM): at PHC facilities the ICSM model should be instituted to ensure patients are managed based on the need for the various services.
- Patient appointment system: an appointment system that include both date and time allocations should be implemented to ensure all available human resources are adequately and efficiently utilised.
- Triage: In Emergency units at hospitals and CHCs triage must be instituted to ensure that very ill patients are not compromised by long PWT.
- Centralised Chronic Medicines Dispensing and Distribution (CCMDD): Stable patients with chronic health conditions should be registered and moved over to the CCMDD programme. This would ensure that patients can access their chronic medication at external pick-up points without overcrowding health facilities.
- Ward based PHC outreach teams: To improve access to health services by patients at community level through delivery of medicines, public health information, screening and appropriate referral.
- Home based care: this service would decrease burden on facilities.

4.5 Referrals

The National Referral Policy and Implementation guidelines (draft) should be used to determine referral pathways to the various levels within the health system and thus ensure that patients are not being seen at inappropriate levels or facilities.

4.6 Communication

- Public Health education at community level on the use of services at the appropriate level: to ensure that all patients are seen in a timeous manner for the conditions that they have to decrease self referrals to inappropriate higher levels of care.
- Health education on primary and secondary prevention of disease to decrease the number of patients ending up with morbidity and bringing a higher burden to the health system.

4.7 Human Resource management

- Staff allocation to the different service areas based on service need and not a historical and/or personal preference should be instituted.
- Duty rosters should be implemented to ensure that services:
 - are delivered continuously while some staff members are on tea or lunch breaks.
 - commence immediately according to the operational hours of that unit/PHC facility.
 - staff training and meetings should always take cognisance of service needs and should not compromise patient care.

5. REFERENCES

1. Hanefeld J, Powell-Jackson T, Balabanova D. Understanding and measuring quality of care: dealing with complexity. Bull World Health Organization. 2017; 95:368–374. doi: <http://dx.doi.org/10.2471/BLT.16.179309>
2. Mayosi B, Lawn JE, van Niekerk A, Bradshaw D, Karim SSA, Coovadia HM. Health in South Africa: changes and challenges since 2009. Lancet [Internet]. Available from [http://dx.doi.org/10.1016/S0140-6736\(12\)61968-0](http://dx.doi.org/10.1016/S0140-6736(12)61968-0)
3. Health Systems Trust. Facilities Baseline Audit. National Summary Report. Westville, September 2012.
4. National Department of Health. [Internet] Ideal Clinic programme. Available from: <https://www.idealhealthfacility.org.za>
5. Lwanga S, Kaggwa, Lemeshow S, World Health Organization. (1991). Sample size determination in health studies: a practical manual. Appendix 2-Table 10 for wards. Geneva: World Health Organization. <http://www.who.int/iris/handle/10665/40062>

Appendix A: Patient Waiting Time Monitoring Tool for PHC facilities: 8 hour service area

Name of Facility:						Record the patient number (e.g. 1 to 100):		
Date of survey:								
Mark the condition for which patient is attending with an "X"								
Acute		Chronic				Mother and child		
Minor ailments	Adult	HIV	TB	NCD	Mental Health	Well baby/ EPI	Family planning	ANC/ PNA
	Children (IMCI)							
MOU								
Area		Time						
Time patient enters PHC facility ¹		Hours				Minutes		
Time patient registers at reception desk		Hours				Minutes		
Time patient is allocated patient record		Hours				Minutes		
Area	Type of health care provider	Start time			End time			
Vital signs		Hours	Minutes	Hours	Minutes	Hours	Minutes	
1 st consultation		Hours	Minutes	Hours	Minutes	Hours	Minutes	
2 nd consultation ²		Hours	Minutes	Hours	Minutes	Hours	Minutes	
3 rd consultation ²		Hours	Minutes	Hours	Minutes	Hours	Minutes	
Pharmacy		Hours	Minutes	Hours	Minutes	Hours	Minutes	
Time patient departs PHC facility ³						Hours	Minutes	

¹ When the patient enters the door of the facility, the queue marshal (or designated staff member) should record the time

² If referred from doctor or nurse to lay counsellor and allied health services (Rehab, social worker, nutritionist, etc)

³ The last point of contact with service provision

Appendix B: Patient Waiting Time Monitoring Tool for CHC: 24 Hour Emergency Unit

Name of facility:		Record the patient number (e.g. 1 to 100):		
Date of Survey:				
Area	Time			
Time patient enters unit¹	Hours	Minutes		
Time patient is triaged	Hours	Minutes		
Time patient registers at reception desk	Hours	Minutes		
Area	Type of health care provider	Start time		End time
Vital signs		Hours	Minutes	Hours Minutes
1 st consultation ²		Hours	Minutes	Hours Minutes
2 nd consultation ²		Hours	Minutes	Hours Minutes
3 rd consultation ²		Hours	Minutes	Hours Minutes
X-rays				
1 st consultation ²		Hours	Minutes	Hours Minutes
2 nd consultation ²		Hours	Minutes	Hours Minutes
2 nd consultation ²		Hours	Minutes	Hours Minutes
Imaging (ultrasound)				
1 st consultation ²		Hours	Minutes	Hours Minutes
2 nd consultation ²		Hours	Minutes	Hours Minutes
3 rd consultation ²		Hours	Minutes	Hours Minutes
Pharmacy				
Observation (12 to 24 hour observation)³				
Time patient departs unit⁴			Hours	Minutes

¹ When the patient enters the door of the unit, the queue marshal (or designated staff member) should record the time

² Applicable if referred

³ Applicable if kept for observation

⁴ The last point of contact with service provision

Appendix C: Patient Waiting Time Calculation Tool: PHC facilities

Name of Facility: _____

Date: _____

Number of patients surveyed

9

Pt No	Area consulted, e.g 24 Hour Emergency Unit, Acute stream (Minor Ailments Adults)	1. Time patient enters facility	2. Time patient is triaged	3. Time patient registers at reception desk	4. Time patient is allocated patient record	5. Start time vital signs	6. End Time vital signs	Nurse			Medical Officer			Allied Health Services			Imaging			X rays			EU														
								1st Cons	2nd Cons	3rd Cons	1st Cons	2nd Cons	3rd Cons	1st Cons	2nd Cons	3rd Cons	1st Cons	2nd Cons	3rd Cons	1st Cons	2nd Cons	3rd Cons	Obs	Pharm													
								7. Start Time	8. End Time	9. Start Time	10. End Time	11. Start Time	12. End Time	13. Start Time	14. End Time	15. Start Time	16. End Time	17. Start Time	18. End Time	19. Start Time	20. End Time	21. Start Time	22. End Time	23. Start Time	24. End Time	25. Start Time	26. End Time	27. Start Time	28. End Time	29. Start Time	30. End Time	31. Start Time	32. End Time	33. Start Time	34. End Time	35. Start Time	36. End Time
1																																					
2																																					
3																																					
4																																					
5																																					
6																																					
7																																					
8																																					
9																																					

- a. Waiting time registration: No 3 minus 1
- b. Waiting time triage: No 2 minus 1
- c. Waiting time patient record: No 4 minus 3
- d. Waiting time vital signs: No 5 minus 4
- e. Waiting time 3 streams of care: No 7 minus 6
- f. Waiting time medical officer: No 13 minus last consultation before visiting medical doctor/vital signs
- g. Waiting time Allied Health Services: No 19 minus last consultation before visiting Allied Health Services
- h. Waiting time imaging: No 25 minus last consultation before visiting imaging
- i. Waiting time X rays: No 31 minus last consultation before visiting x-rays
- j. Waiting time observation in EU: No 37 minus last consultation before going for observation
- k. Waiting time Pharmacy: No 39 minus last consultation before visiting pharmacy
- Total patient waiting time:** sum of (a) to (k)

Abbreviations:
 Cons: Consultations
 Eu: Emergency Unit
 Obs: Observation
 Pt: Patient
 Pharm: Pharmacy

Note: if patients return for a 2nd and/or 3rd consultation at the same type of health care provider, the PWT for those consultations must be added to the total PWT

Appendix D: Patient Waiting Time Monitoring Tool for hospitals: Admissions Unit

Name of facility:		Record the patient number (e.g. 1 to 100):	
Date of Survey:			
Area	Time		
Time patient enters unit¹	Hours	Minutes	
Time patient registers at admission/reception desk	Hours	Minutes	
Area	Start Time		End Time
Time patient completes vital signs	Hours	Minutes	Hours Minutes
Area	Time		
Time patient allocated a designated bed in the ward²	Hours	Minutes	

¹ When the patient enters the door of the Admissions unit, the queue marshal (or designated staff member) should record the time

² All administrative processes completed and patients allocated a designated bed in the ward

Appendix E: Patient Waiting Time Monitoring Tool for hospitals: Emergency Unit

Name of facility:		Record the patient number (e.g. 1 to 100):			
Date of Survey:					
Area		Time			
Time patient enters unit¹		Hours		Minutes	
Time patient is triaged		Hours		Minutes	
Time patient registers at reception desk		Hours		Minutes	
Area	Type of health care provider	Start time		End time	
Vital signs		Hours	Minutes	Hours	Minutes
Medical officer					
1 st consultation		Hours	Minutes	Hours	Minutes
2 nd consultation ²		Hours	Minutes	Hours	Minutes
3 rd consultation ²		Hours	Minutes	Hours	Minutes
Medical specialist					
1 st consultation ²		Hours	Minutes	Hours	Minutes
2 nd consultation ²		Hours	Minutes	Hours	Minutes
3 rd consultation ²		Hours	Minutes	Hours	Minutes
X-rays					
1 st consultation ²		Hours	Minutes	Hours	Minutes
2 nd consultation ²		Hours	Minutes	Hours	Minutes
2 nd consultation ²		Hours	Minutes	Hours	Minutes
Imaging (ultrasound and scans)					
1 st consultation ²		Hours	Minutes	Hours	Minutes
2 nd consultation ²		Hours	Minutes	Hours	Minutes
3 rd consultation ²		Hours	Minutes	Hours	Minutes
Pharmacy		Hours	Minutes	Hours	Minutes
Observation (12 to 24 hour observation)³		Hours	Minutes	Hours	Minutes
Time patient departs unit⁴				Hours	Minutes

¹ When the patient enters the door of the unit, the queue marshal (or designated staff member) should record the time

² Applicable if referred

³ Applicable if kept for observation

⁴ The last point of contact with service provision

Appendix F: Patient Waiting Time Monitoring Tool for hospitals: OPD

Name of facility:		Record the patient number (e.g. 1 to 100):		
Name of OPD:				
Date of Survey:				
Area		Time		
Time patient enters unit¹		Hours	Minutes	
Time patient registers at reception desk		Hours	Minutes	
Area	Type of health care provider	Start time		End time
Vital signs		Hours	Minutes	Hours Minutes
Medical officer				
1 st consultation		Hours	Minutes	Hours Minutes
2 nd consultation ²		Hours	Minutes	Hours Minutes
3 rd consultation ²		Hours	Minutes	Hours Minutes
Medical specialist				
1 st consultation ²		Hours	Minutes	Hours Minutes
2 nd consultation ²		Hours	Minutes	Hours Minutes
3 rd consultation ²		Hours	Minutes	Hours Minutes
X-rays				
1 st consultation ²		Hours	Minutes	Hours Minutes
2 nd consultation ²		Hours	Minutes	Hours Minutes
2 nd consultation ²		Hours	Minutes	Hours Minutes
Imaging (ultrasound and scans)				
1 st consultation ²		Hours	Minutes	Hours Minutes
2 nd consultation ²		Hours	Minutes	Hours Minutes
3 rd consultation ²		Hours	Minutes	Hours Minutes
Laboratory				
1 st consultation ²		Hours	Minutes	Hours Minutes
2 nd consultation ²		Hours	Minutes	Hours Minutes
3 rd consultation ²		Hours	Minutes	Hours Minutes
Support Services (allied health services including Oral health, social worker, nutritionist etc.)				
1 st consultation ²		Hours	Minutes	Hours Minutes
2 nd consultation ²		Hours	Minutes	Hours Minutes
3 rd consultation ²		Hours	Minutes	Hours Minutes
Pharmacy				
Time patient departs unit³				Hours Minutes

¹ When the patient enters the door of the unit, the queue marshal (or designated staff member) should record the time

² Applicable if referred

³ The pharmacy is usually the exit touch point after patient has made their return appointment at the designated reception or administrative point.

Appendix G: Patient Waiting Time Calculation Tool: Hospitals

Name of Facility: _____

Date: _____

Number of patients surveyed

9

Pt No	Unit surveyed: Admissions, OPD, 24 Hour Emergency Unit	Medical Officer			Medical specialist			Allied Health Services			Imaging			X rays			Laboratory			EU	Pharmacy
		1st Cons	2nd Cons	3rd Cons	1st Cons	2nd Cons	3rd Cons	1st Cons	2nd Cons	3rd Cons	1st Cons	2nd Cons	3rd Cons	1st Cons	2nd Cons	3rd Cons	1st Cons	2nd Cons	3rd Cons	Obs	
		Start Time	End Time	Start Time	End Time	Start Time	End Time	Start Time	End Time	Start Time	End Time	Start Time	End Time	Start Time	End Time	Start Time	End Time	Start Time	End Time	Start Time	
1																					
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					

- a. Waiting time registration: No 3 minus 1
- b. Waiting time triage: No 2 minus 1
- c. Waiting time vital signs: No 4 minus 3
- d. Waiting time allocated to bed (Adms) No 6 minus 5
- e. Waiting time medical officer: No 13 minus last consultation before visiting medical doctor/vital signs
- f. Waiting time Allied Health Services No 19 minus last consultation before visiting imaging
- g. Waiting time imaging: No 25 minus last consultation before visiting imaging
- h. Waiting time X rays: No 31 minus last consultation before visiting x-rays
- i. Waiting time Laboratory: No 37 minus last consultation before visiting laboratory
- j. Waiting time observation in EU No 43 minus last consultation before going for observation
- k. Waiting time Pharmacy: No 45 minus last consultation before visiting pharmacy
- Total waiting time:** sum of (a) to (j)

<p>Abbreviations: Adms: Admissions Cons: Consultations Eu: Emergency Unit Obs: Observation Pt: Patient Pharm: Pharmacy</p>

Note: if patients return for a 2nd and/or 3rd consultation at the same type of health care provider, the PWT for those consultations must be added to the total PWT