

Waiting Times Surveys (WTS) at 1^o 2^o and 3^o Facilities in Western Cape

Gavin Reagon

Ehimario Igumbor

School of Public Health of UWC

Information Officers City Health and MDHS

Quality Assurance Officers PGWC

Health Research

- Basic Biomedical Sciences research
- Clinical Research
- Epidemiology
- Clinical Epidemiology
- Health Systems and Policy Research

- Routine Large Scale Surveys

Routine Health Information Systems

- Facility Based Information
- Mortality and Births
- Population Census
- Surveillance
- Situational Analysis
- Longitudinally updated records (staff, facilities, finances)
- Routine Large Scale Surveys

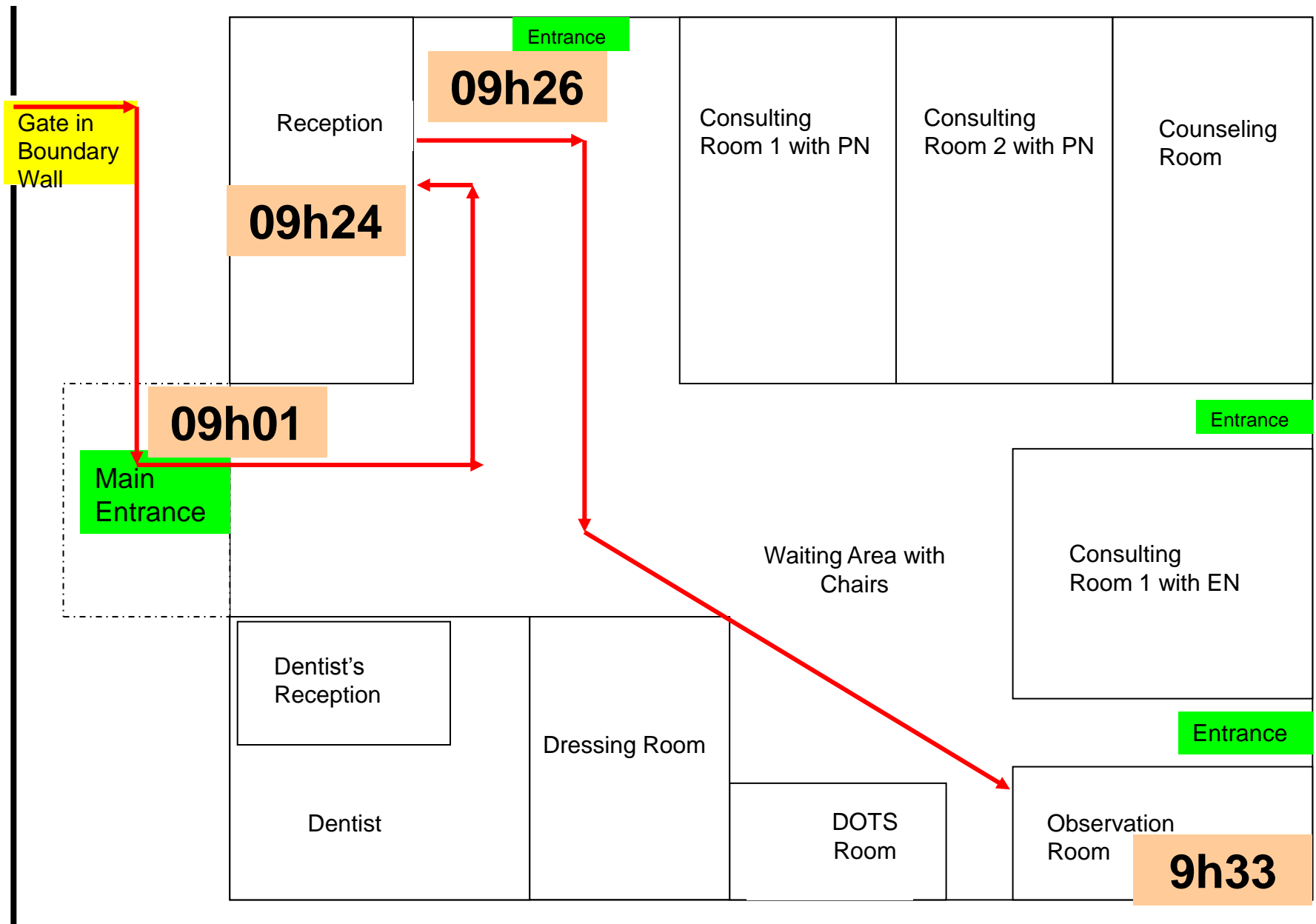
Value of a WTS

(What it Mainly Measures)

- Measures Waiting Times
- Identifies the immediate Causes of Long Waiting Times (and suggests solutions for these)
- Measures Service Times
- Measures Workload accurately
- Measures Quality of Care (partially)
- Measures Systems Efficiency

Methodology

1. All outpatients, casualty patients, and direct admissions to wards seen on an average day are included in the survey (inpatients already admitted are excluded)
2. All patients are tracked from the time they arrive at the facility till the time they depart (or are admitted to the wards) via a patient time-sheet
3. At every point at which a patient receives a service the times are recorded
4. Staff complete a staff time-sheet which tracks the time they spend at the service points they work at.
5. Short questionnaire completed by staff and patients



Gate in Boundary Wall

Reception

09h24

Entrance

09h26

Consulting Room 1 with PN

Consulting Room 2 with PN

Counseling Room

09h01

Main Entrance

Entrance

Waiting Area with Chairs

Consulting Room 1 with EN

Dentist's Reception

Dressing Room

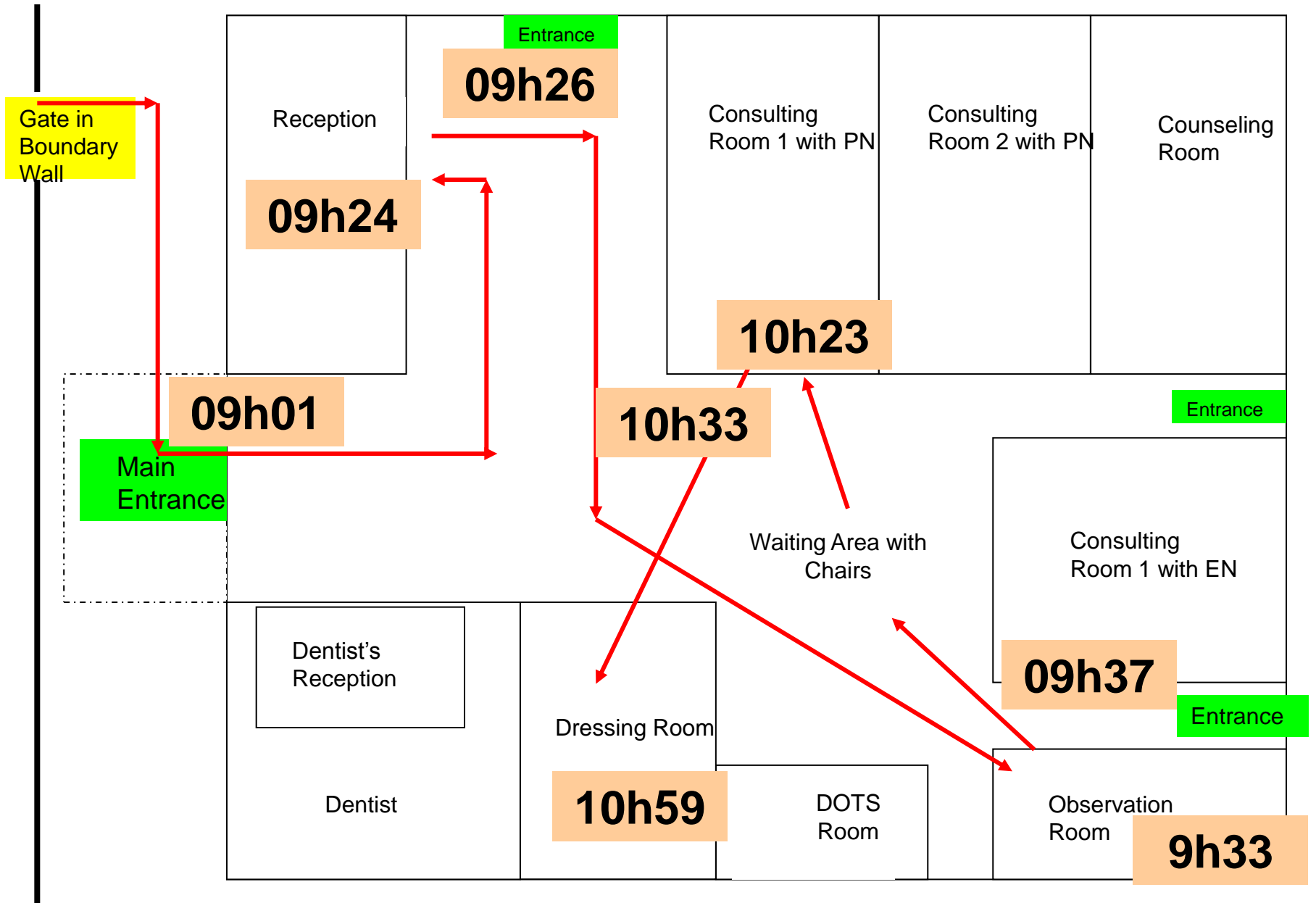
Entrance

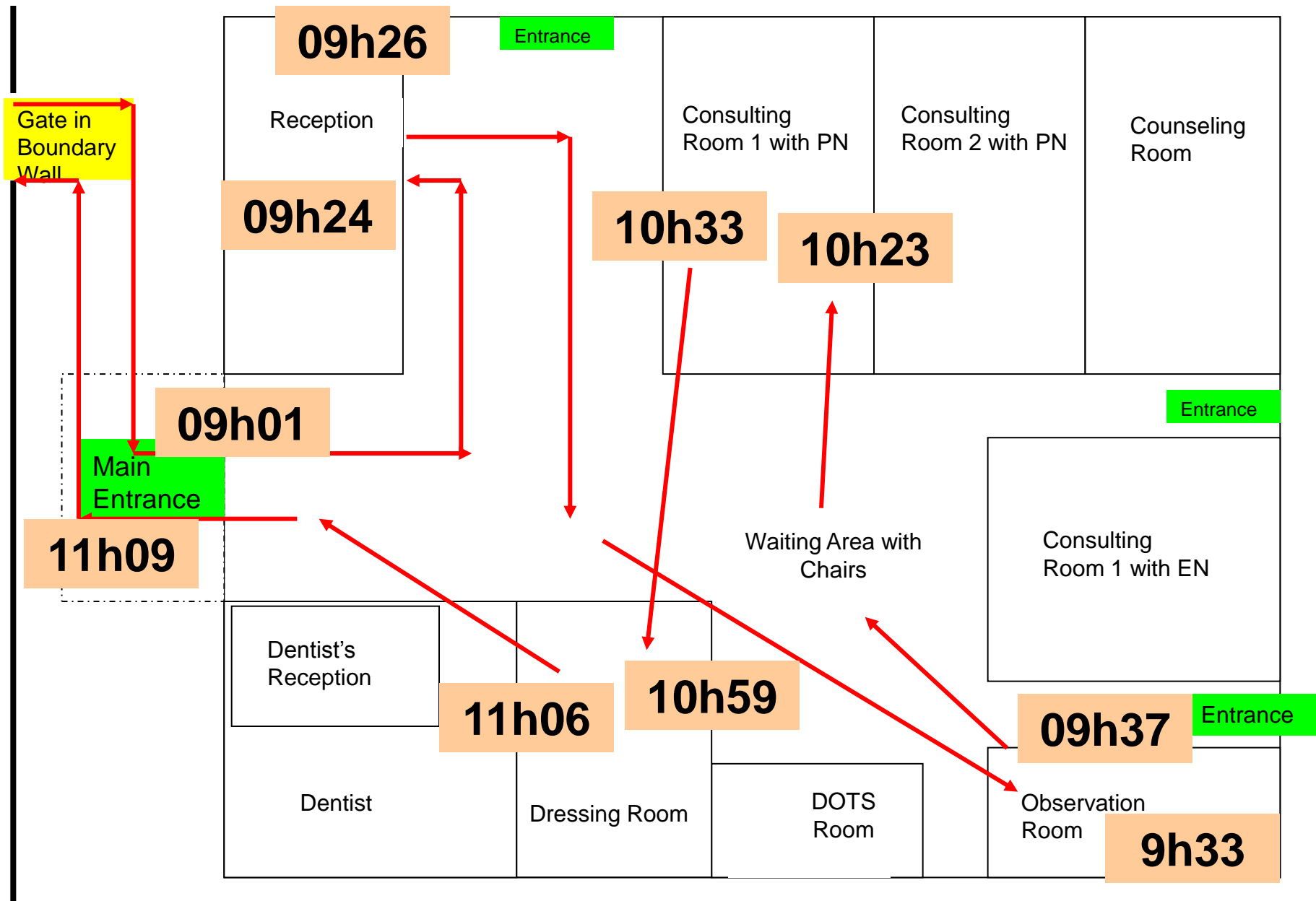
Dentist

DOTS Room

Observation Room

9h33





Calculating Waiting and Service Times

Arrival Time 9:01

Service Point	Time In	Time Out	Service Time	Waiting Time
Reception	9:24	9:26	2 min	23 min
Observation Room	9:33	9:37	4 min	7 min
Consulting Room PN	10:23	10:33	10 min	46 min
Dressing Room	10:59	11:06	7 min	26 min
Complete ST			23 min	
Complete WT				102 min

Departure Time 11:09

Dead Time 3 min

Staff Form for Staff Present during the Waiting and Service Time Survey

Facility name	CHC				Date:				Staff Code:		
Arrival Time							Staff Category				
Service Section	Time In	Time Out		Time In	Time Out		Time In	Time Out		Time In	Time Out
Tea Break											
Lunch Break											
Reception											
Weighing & Preparation											
Consulting Room PN											
Pharmacy											
TB Dots Room											
Emergency _Trauma											
Administration											
Management											
Outreach Activities											
Meetings, Workshops and Training											
Other Clinical											
Other Non-Clinical											
Departure Time											

Staff Form for Staff Present during the Waiting and Service Time Survey

Facility name	CHC				Date:				Staff Code:		
Arrival Time	07:03					Staff Category					
Service Section	Time In	Time Out		Time In	Time Out		Time In	Time Out		Time In	Time Out
Tea Break											
Lunch Break											
Reception											
Weighing & Preparation											
Consulting Room PN	07:09	09:59									
Pharmacy											
TB Dots Room											
Emergency _Trauma											
Administration											
Management											
Outreach Activities											
Meetings, Workshops and Training											
Other Clinical											
Other Non-Clinical											
Departure Time											

Staff Form for Staff Present during the Waiting and Service Time Survey

Facility name	CHC				Date:				Staff Code:		
Arrival Time	07:03					Staff Category					
Service Section	Time In	Time Out		Time In	Time Out		Time In	Time Out		Time In	Time Out
Tea Break	10:00	10:21									
Lunch Break											
Reception											
Weighing & Preparation											
Consulting Room PN	07:09	09:59		10:25	11:38						
Pharmacy											
TB Dots Room											
Emergency _Trauma											
Administration											
Management											
Outreach Activities											
Meetings, Workshops and Training											
Other Clinical											
Other Non-Clinical											
Departure Time											

Results

Complete Waiting Time Hosp OPD 2008

Facility Name	5%	25%	Median	75%	95%
Groote Schuur Hospital	14	92	178	250	392
Tygerberg Hospital	16	92	193	275	452
Red Cross Hospital	6	46	114	180	297
Worcester Hospital	6	125	187	255	349

Complete Waiting Time Emergency in minutes

<u>Facility Name</u>	5%	25%	Med ian	75%	95%
Groote Schuur Hospital Wed	5	52	173	321	583
Groote Schuur Hospital Sat	5	10	67	188	441
Tygerberg Hospital Thurs	3	10	36	141	225
Tygerberg Hospital Sat	N/A	N/A	N/A	N/A	N/A

Complete Waiting Time Emergency in minutes

<u>Facility Name</u>	5%	25%	Med ian	75%	95%
Red Cross Hospital Wed	3	20	55	185	151
Red Cross Hospital Sat	5	19	83	157	322
Worcester Hospital Wed	2	35	96	196	376
Worcester Hospital Sat	7	24	98	213	427

Facility Type	Shortest Median Waiting Time		Longest Median Waiting Time	
	2005	2007	2005	2007
Clinics	2 min	7 min	99 min	203 min
CHCs	27 min	20 min	263 min	215 min
CHC and Clinic	29 min	39 min	225 min	178 min
All Facilities	2 min	7 min	263 min	215 min

Causes of Long Waiting Time

1. Workload (overloaded)
2. Arriving in Big Batches
3. Mismatch
4. Long Service time (inappropriately)
5. Inefficiency (in prioritising patients)
6. Logistics
7. Flow
8. Queuing
9. Gaps between seeing patients
10. Waiting for ward/ICU/theatre bed (Emerg Units)
11. Long Diagnostic & Monitoring time (Emerg Units)

Main Causes of Long Waiting Time at Hospital OPDs

1. Arriving in Big Batches early in the morning
2. Mismatch mainly at clinician service points
3. Workload (overloaded) mainly at pharmacy

Main Causes of Long Waiting Time at CHCs

1. Arriving in Big Batches early in the morning
2. Mismatch mainly at Reception and Clinician service points
3. Inefficiency in prioritising patients
4. Workload (overloaded) mainly at pharmacy

Main Causes of Long Waiting Time at Clinics

1. Arriving in Big Batches early in the morning
2. Mismatch mainly at Reception and Clinician service points
3. Inefficiency in prioritising patients

Main Causes of Long Waiting Time at Hospital Emergency Units

1. Waiting for ward/ICU/theatre bed
2. Long Diagnostic & Monitoring time
(Insufficient Senior Staff)
3. Workload (overloaded)

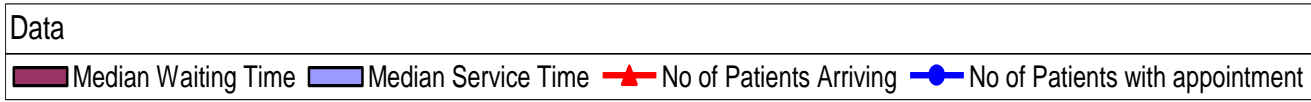
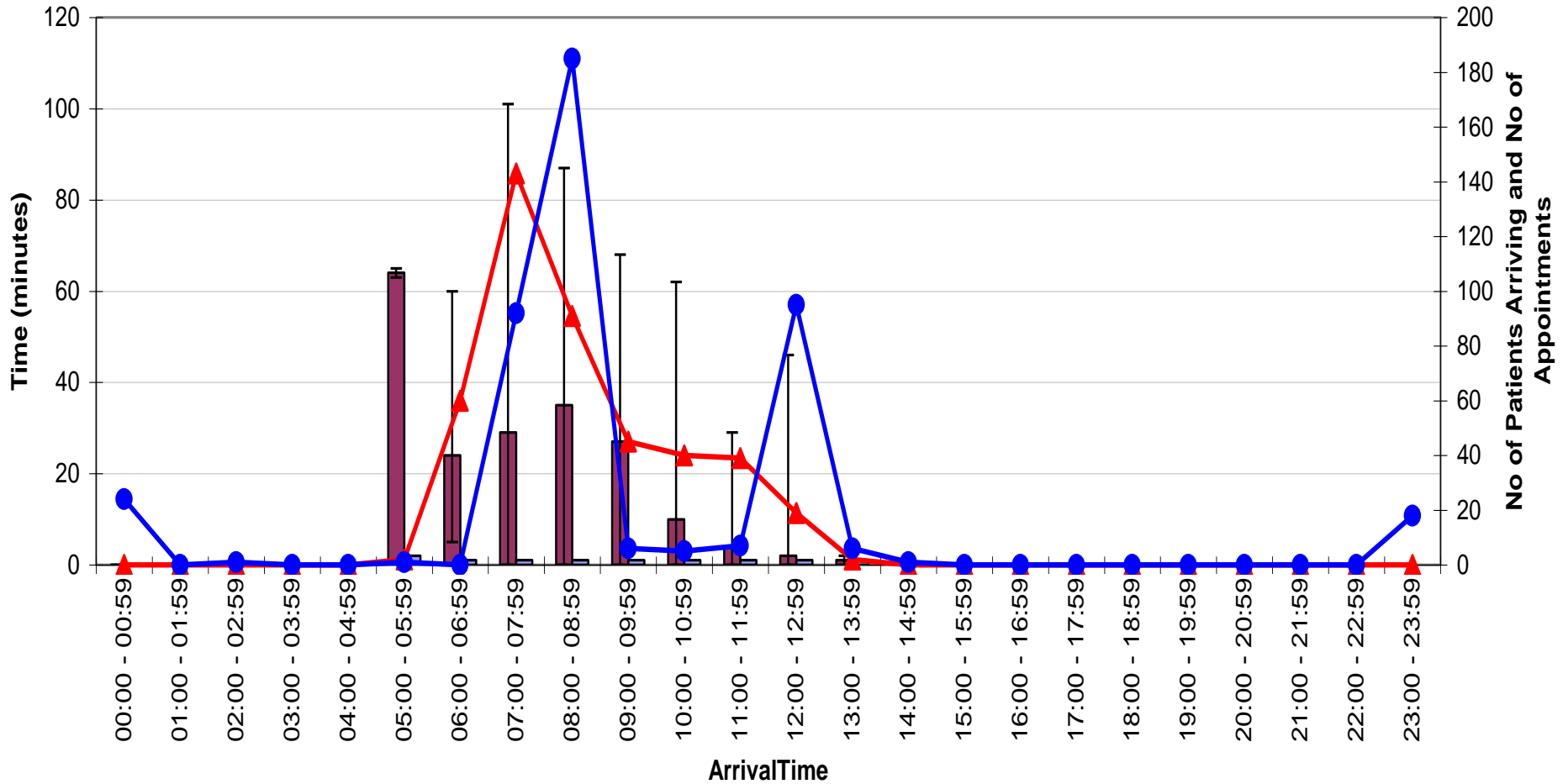
Main Causes of Long Waiting Time at Hospital OPDs

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wc Groote Schuur Hospital : E OPD Central Reception Counter

Waiting Time, Service Time & No of Patients Arriving By Arrival Time

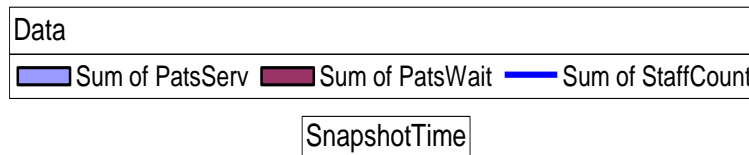
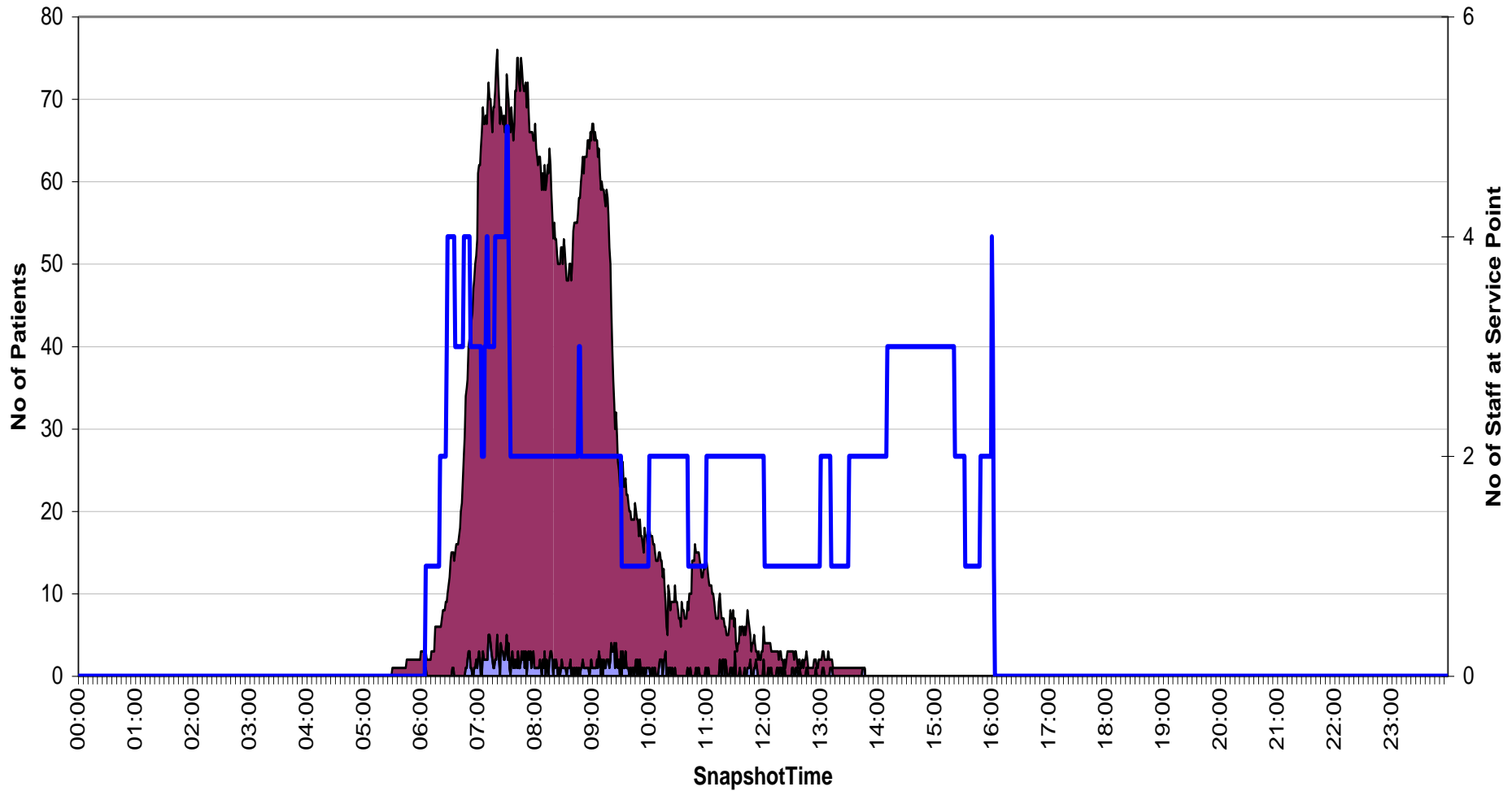
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ArrivalTime

wc Groote Schuur Hospital : E OPD Central Reception Counter

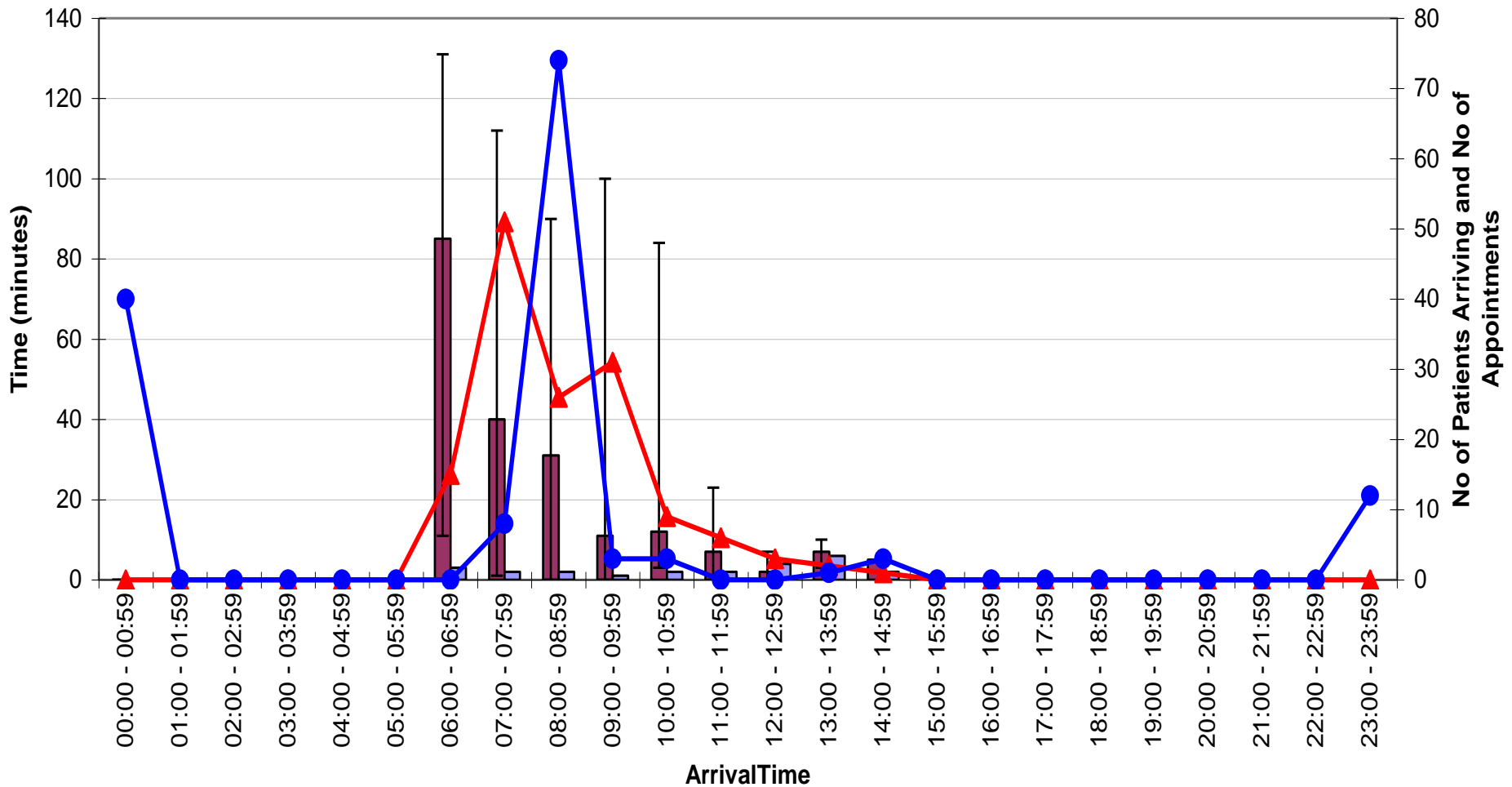
Snapshot of Patients Waiting and those Receiving a Service at any Point in Time



Worcester Hospital : OPD Reception Get Folders

Waiting Time, Service Time & No of Patients Arriving By Arrival Time

No specific time set to 00.00 - 00.59, No appointment set to 23.00 - 23.59

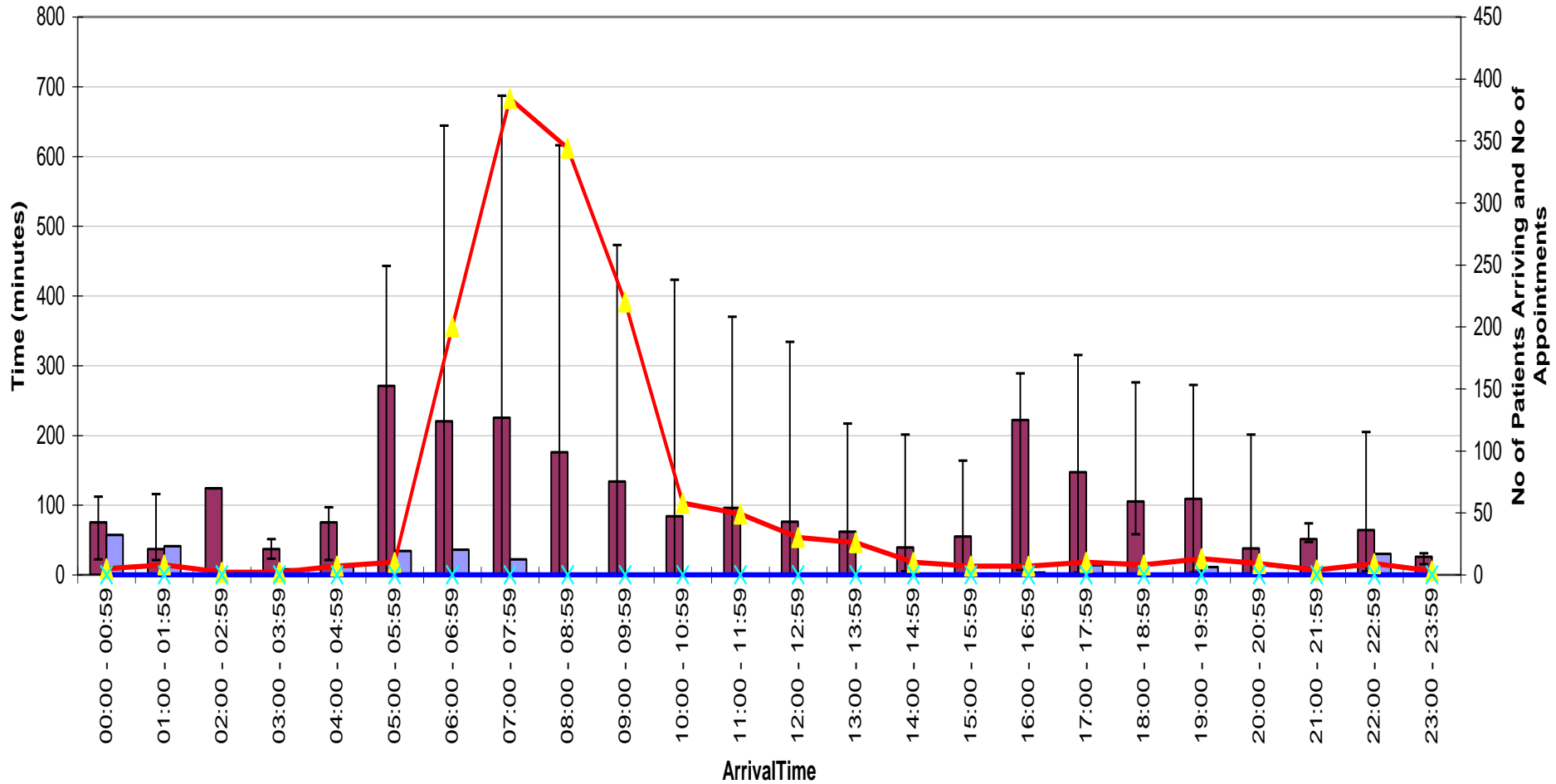


Data			
 Median Waiting Time	 Median Service Time	 No of Patients Arriving	 No of Patients with appointment

ArrivalTime

wc Tygerberg Hospital

Waiting Time, Service Time & No of Patients Arriving By Arrival Time



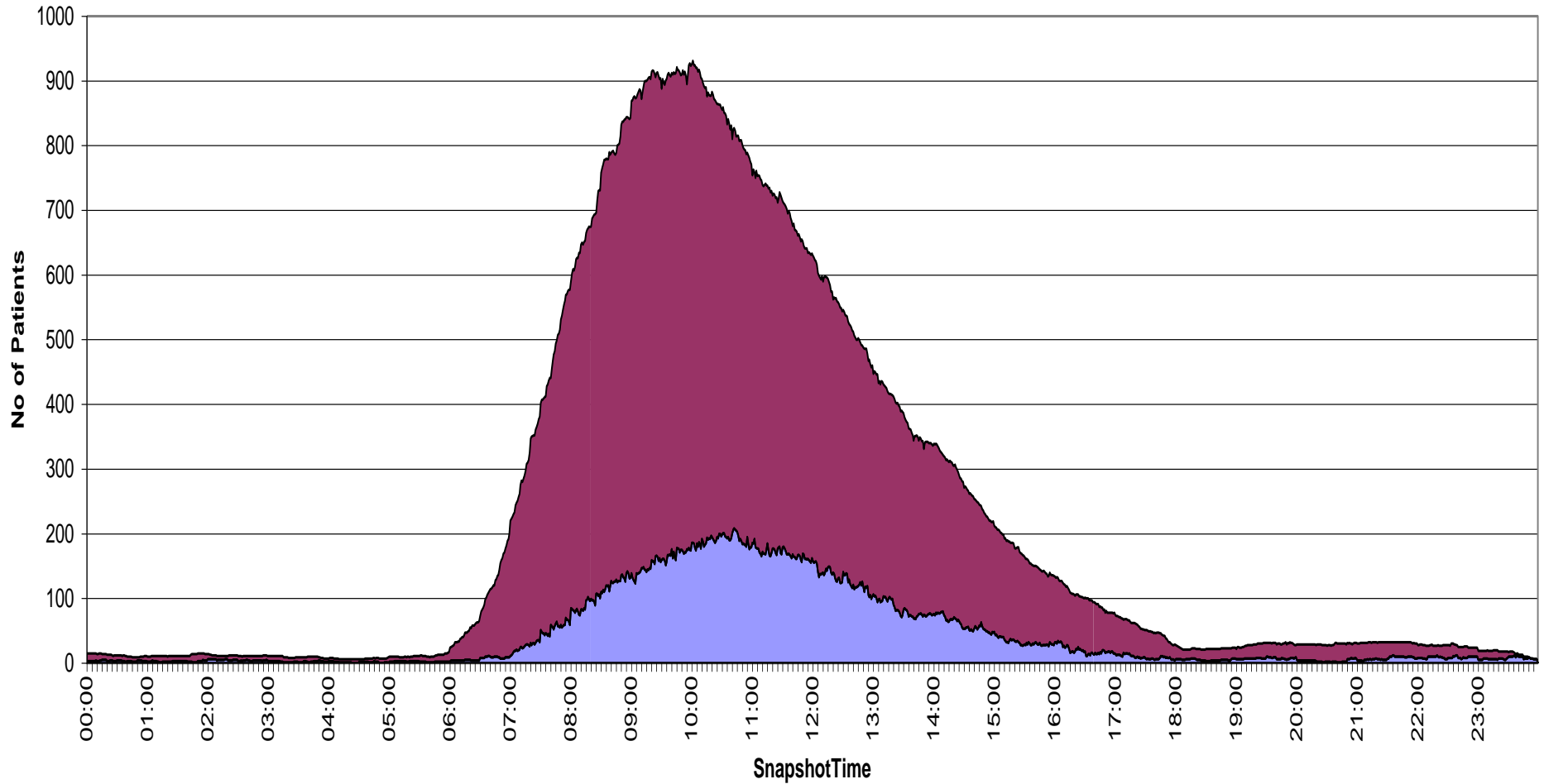
Data

Median Waiting Time
 Median Service Time
 No of Patients Arriving
 No of Patients with appointment

ArrivalTime

wc Tygerberg Hospital

Snapshot of Patients Waiting and those Receiving a Service at any Point in Time



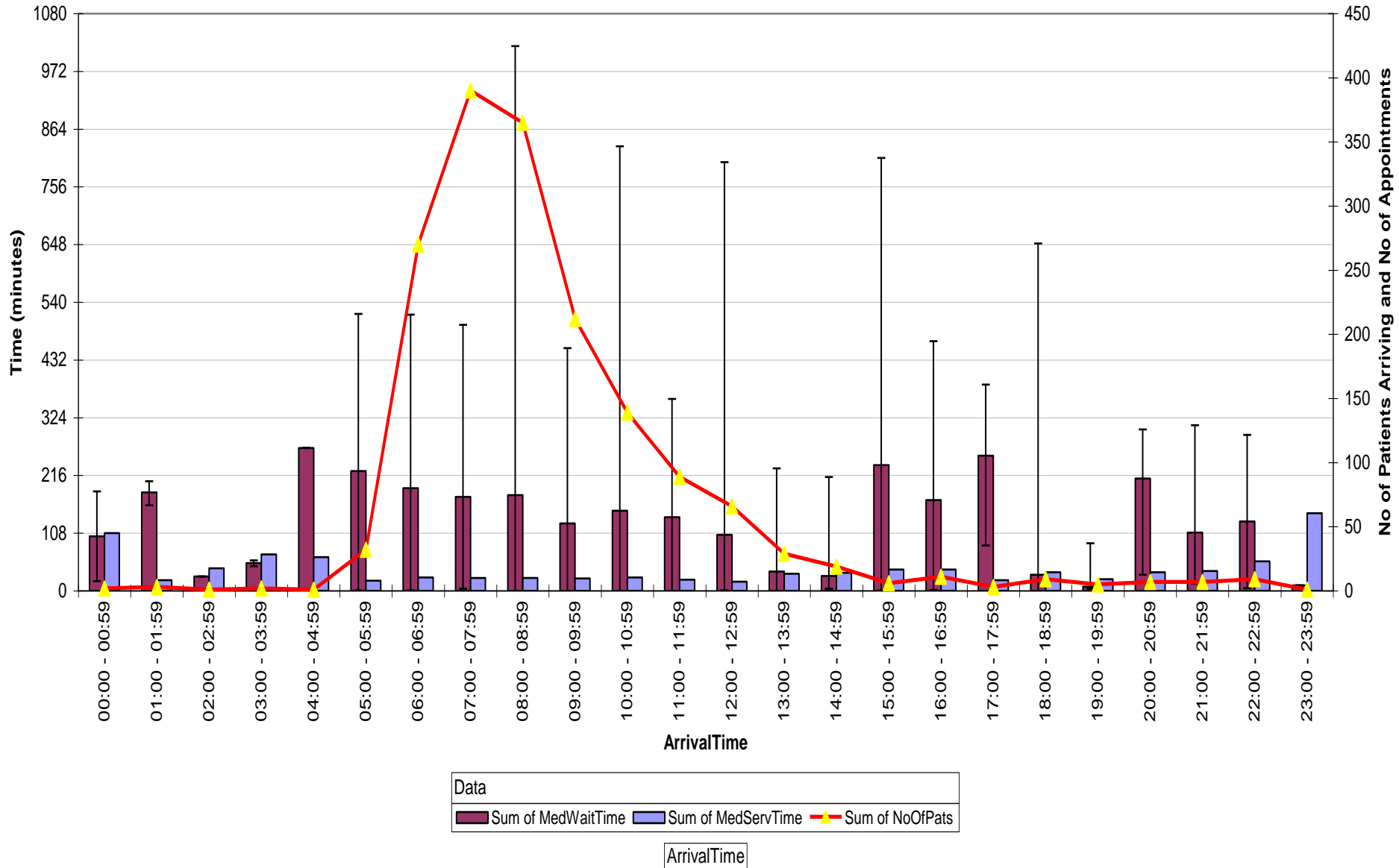
Data

■ No of Patients Receiving a Service ■ No of Patients Waiting for a Service

SnapshotTime

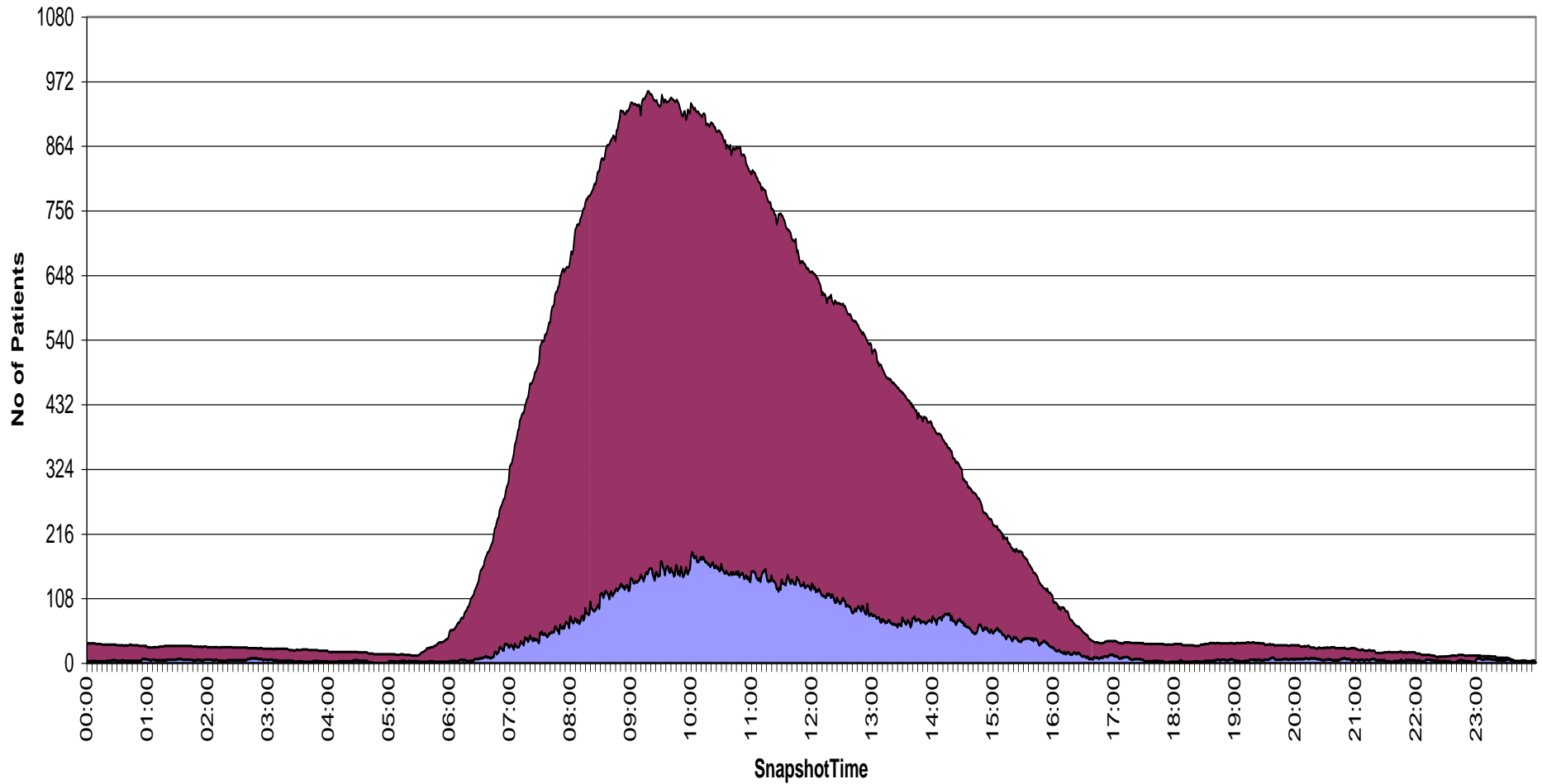
wc Groote Schuur Hospital

Waiting Time, Service Time & No of Patients Arriving By Arrival Time



wc Groote Schuur Hospital

Snapshot of Patients Waiting and those Receiving a Service at any Point in Time



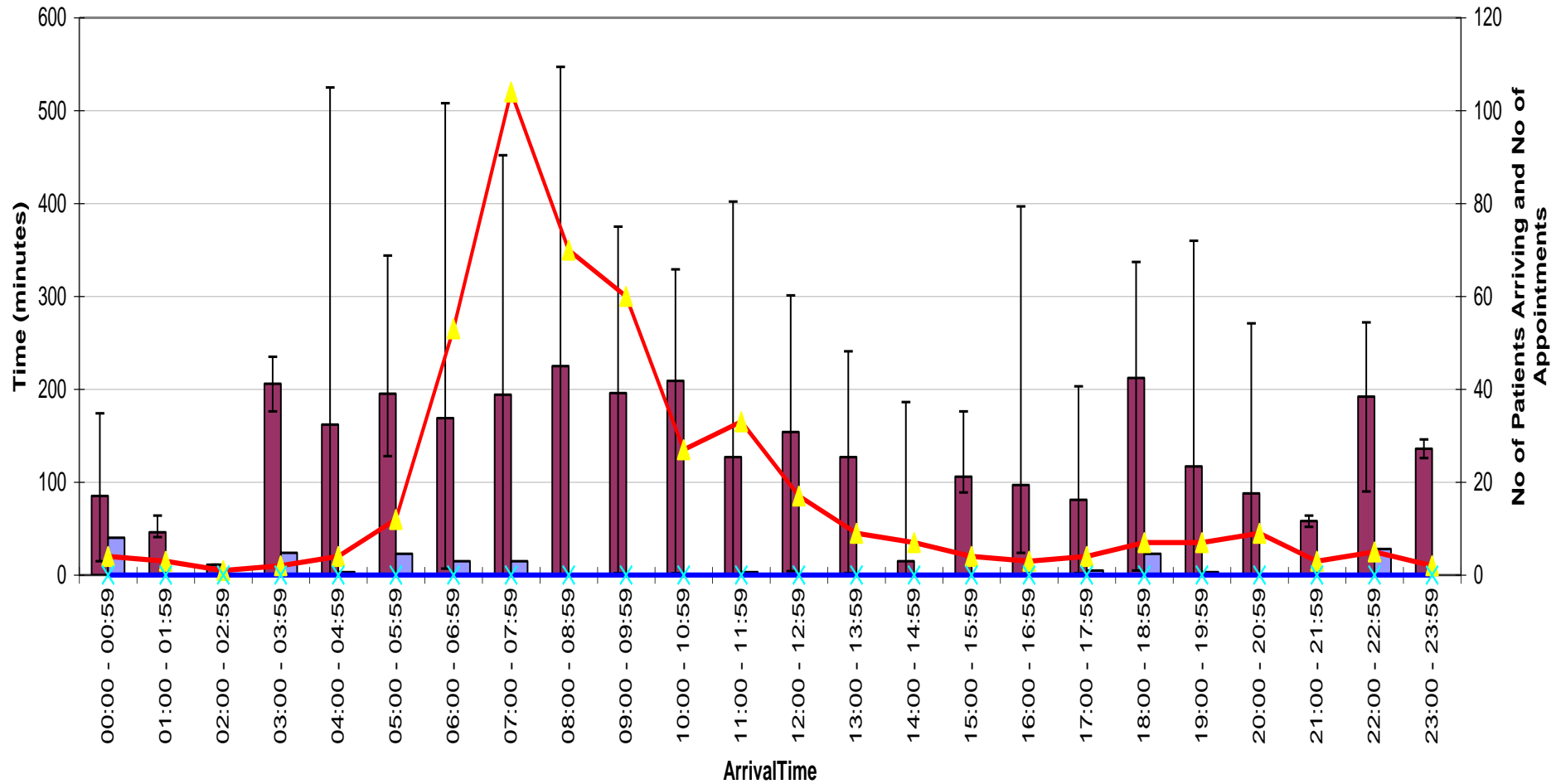
Data

■ No of Patients Receiving a Service ■ No of Patients Waiting for a Service

SnapshotTime

Worcester Hospital

Waiting Time, Service Time & No of Patients Arriving By Arrival Time



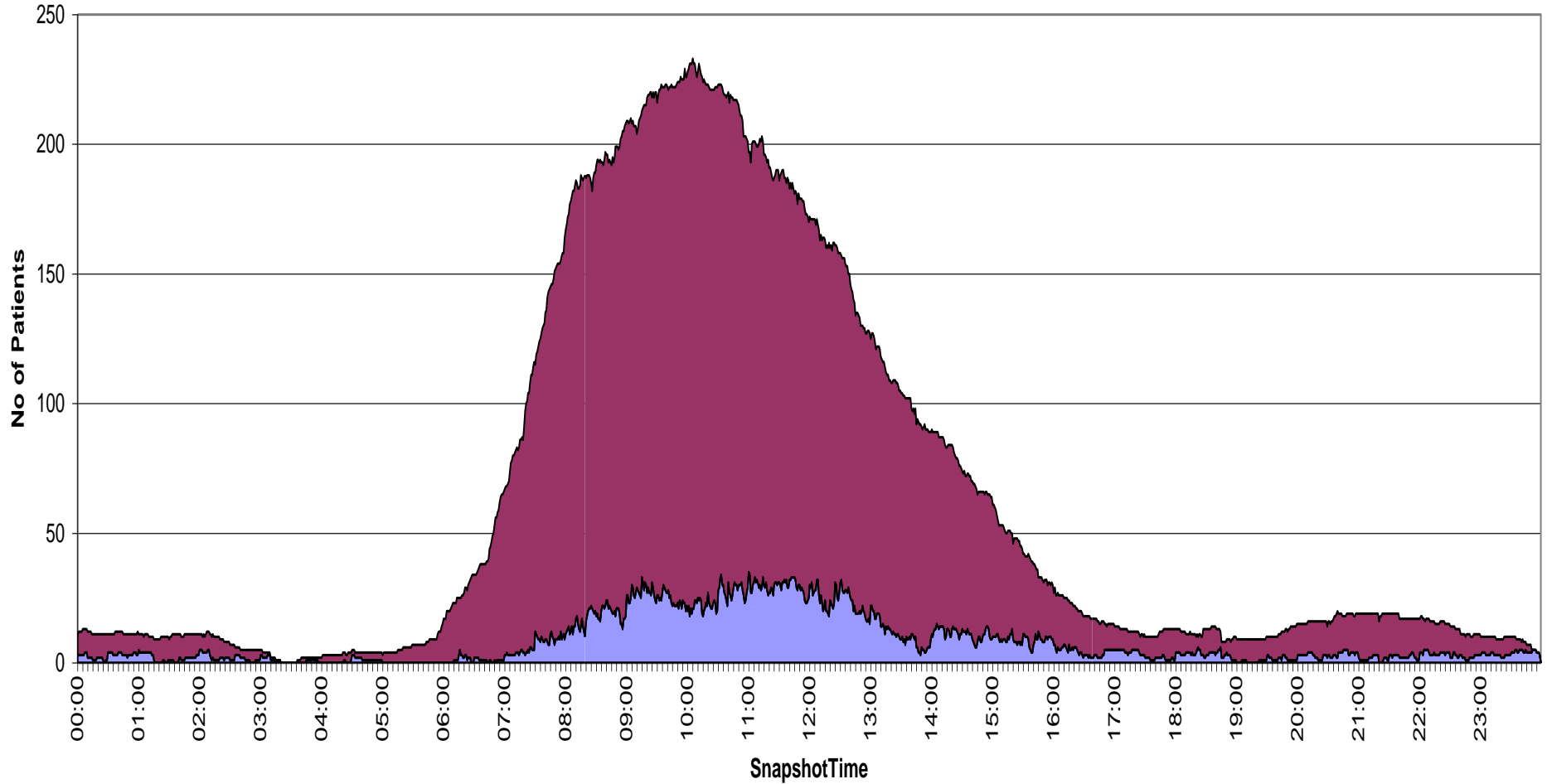
Data

Median Waiting Time
 Median Service Time
 No of Patients Arriving
 No of Patients with appointment

ArrivalTime

Worcester Hospital

Snapshot of Patients Waiting and those Receiving a Service at any Point in Time



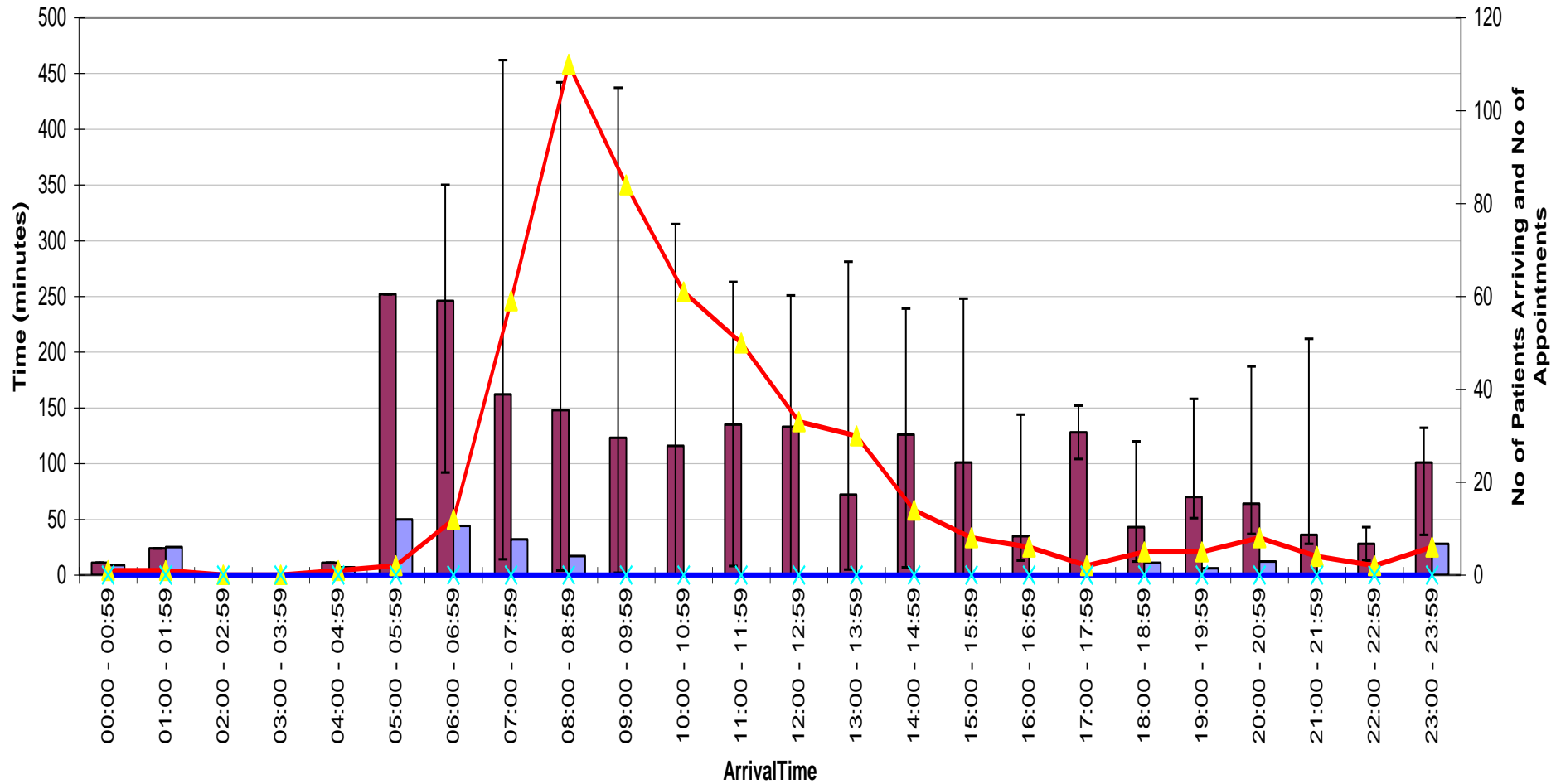
Data

■ No of Patients Receiving a Service ■ No of Patients Waiting for a Service

SnapshotTime

wc Red Cross Childrens Hospital

Waiting Time, Service Time & No of Patients Arriving By Arrival Time



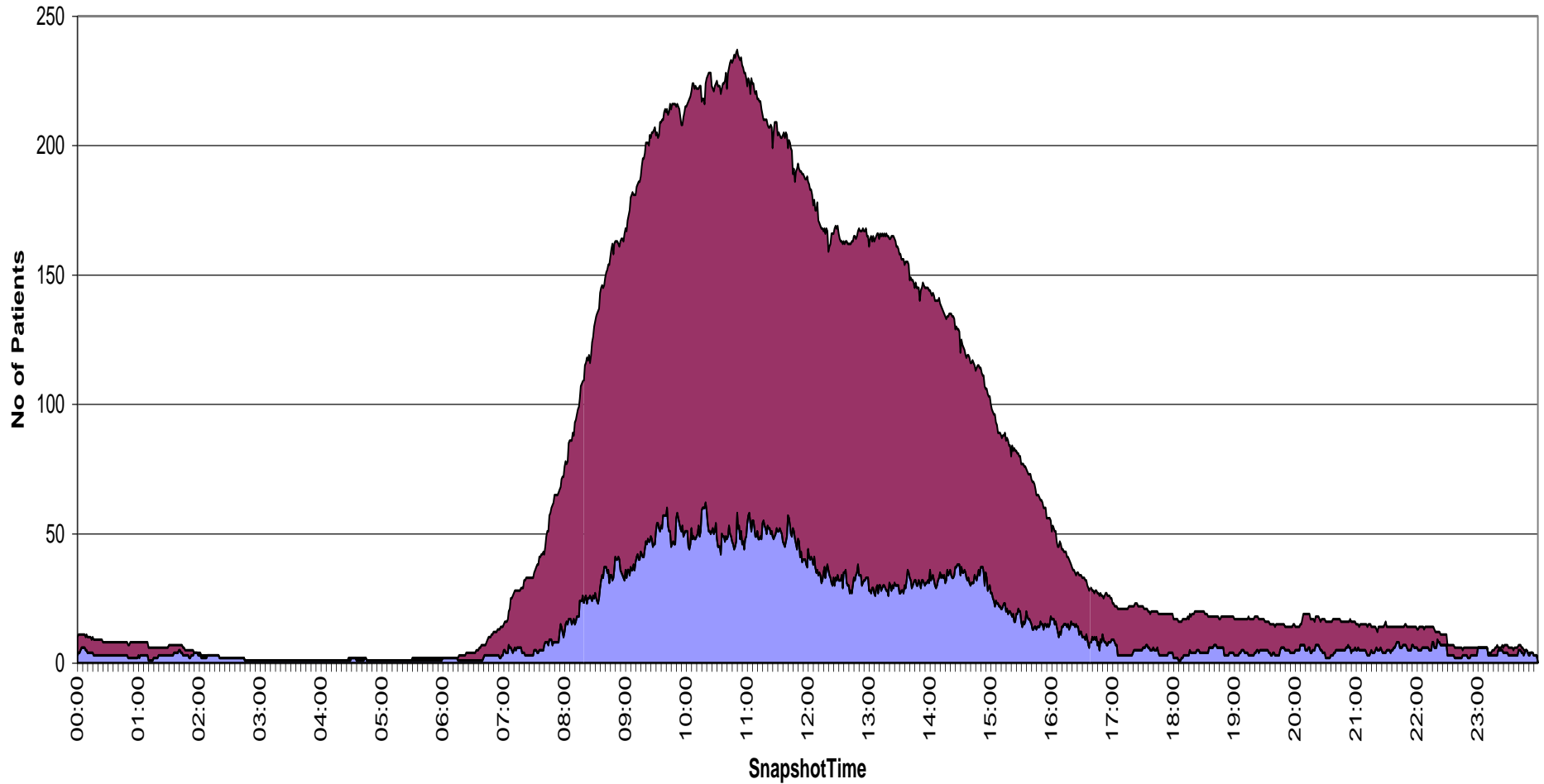
Data

Median Waiting Time
 Median Service Time
 No of Patients Arriving
 No of Patients with appointment

ArrivalTime

wc Red Cross Childrens Hospital

Snapshot of Patients Waiting and those Receiving a Service at any Point in Time

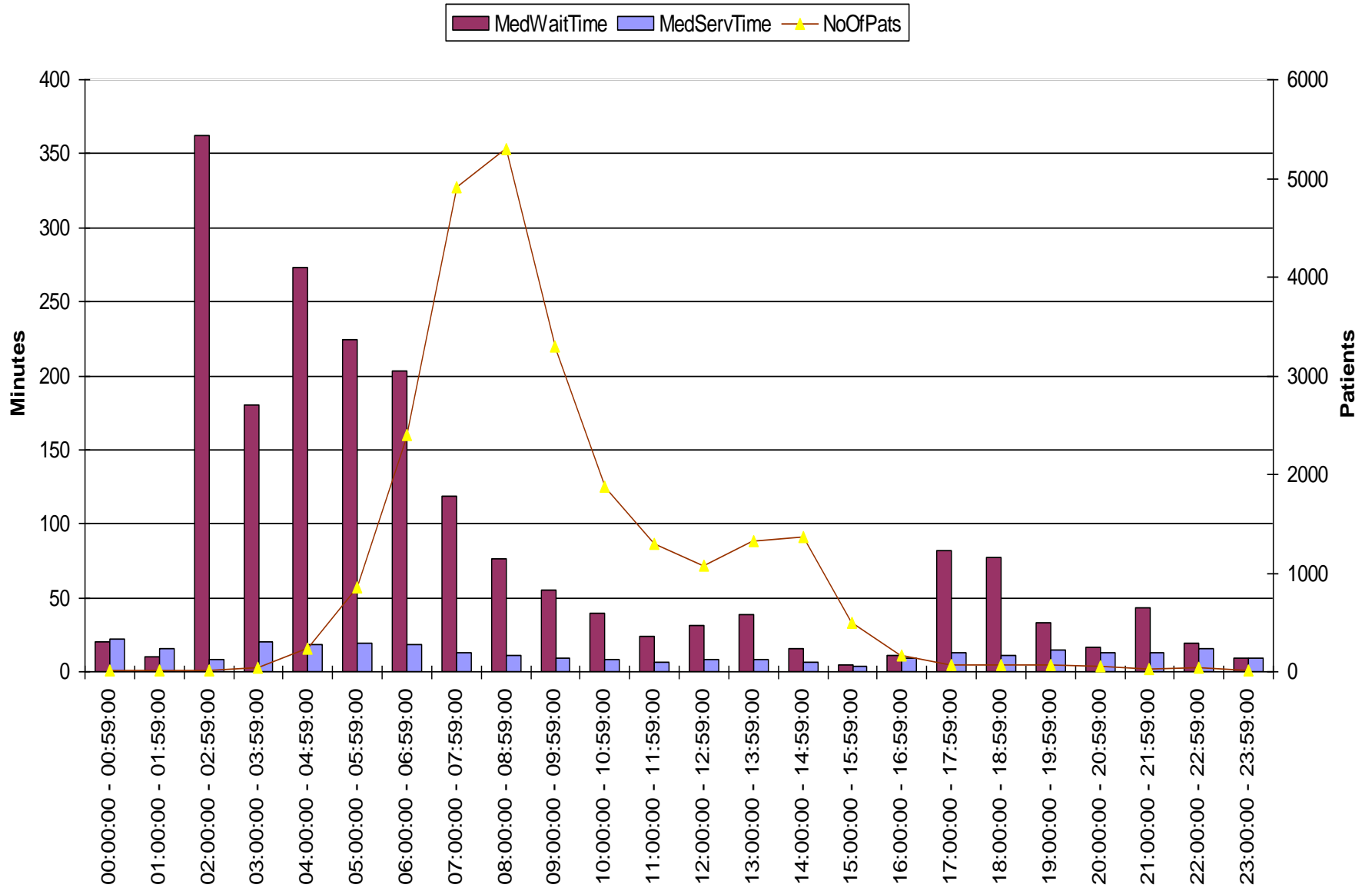


Data

No of Patients Receiving a Service No of Patients Waiting for a Service

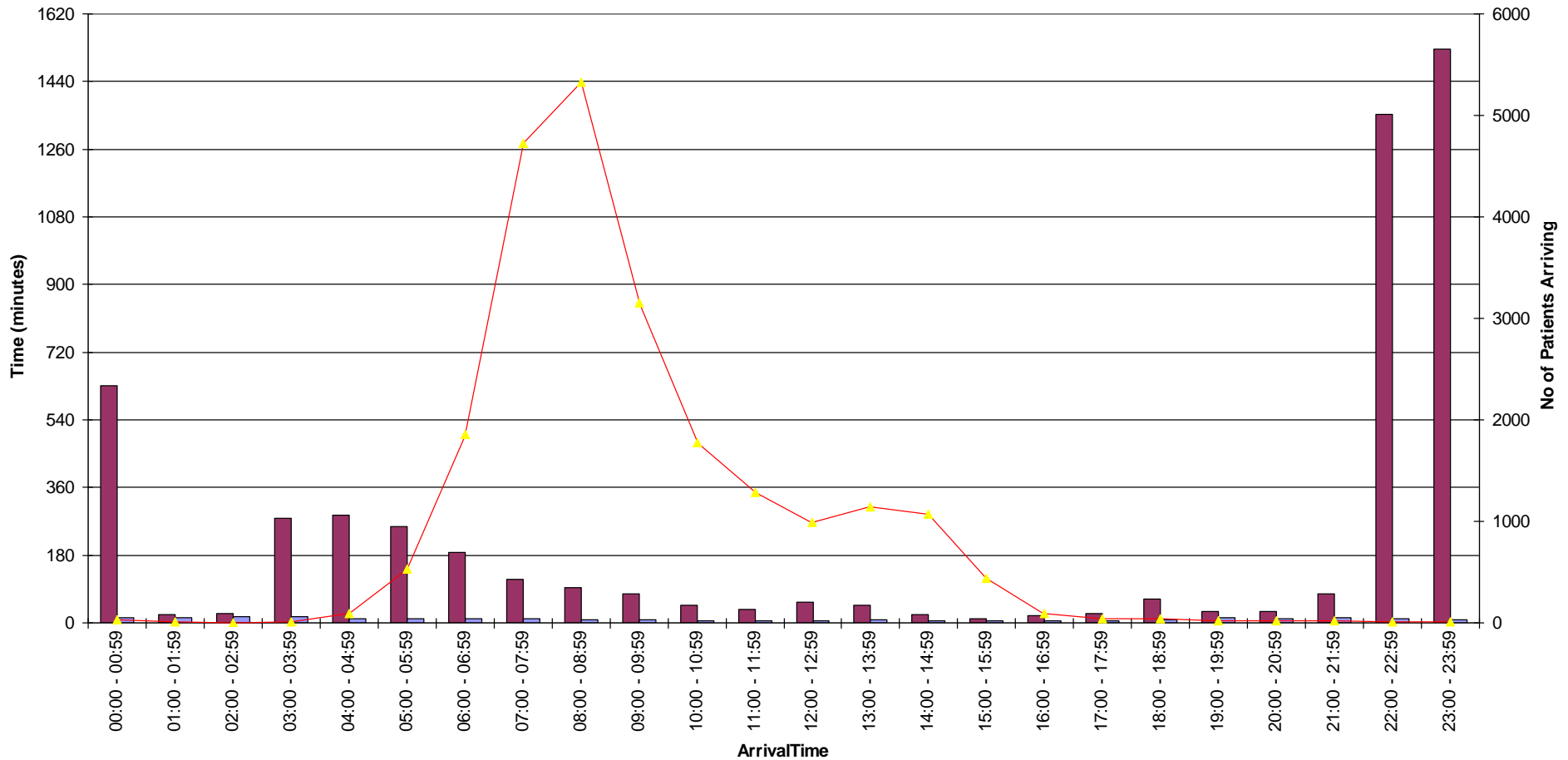
SnapshotTime

Patient Numbers, Waiting Times and Service Times by Arrival Time for Cape Town in August 2005



Complete Survey - All Facilities - All Service Points

Waiting Time, Service Time & No of Patients Arriving By Arrival Time in August 2007



Data ▼

Sum of MedWaitTime
 Sum of MedServTime
 Sum of NoOfPats

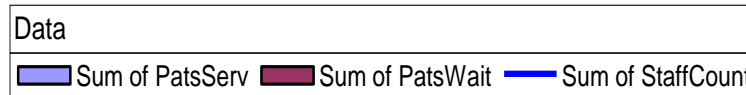
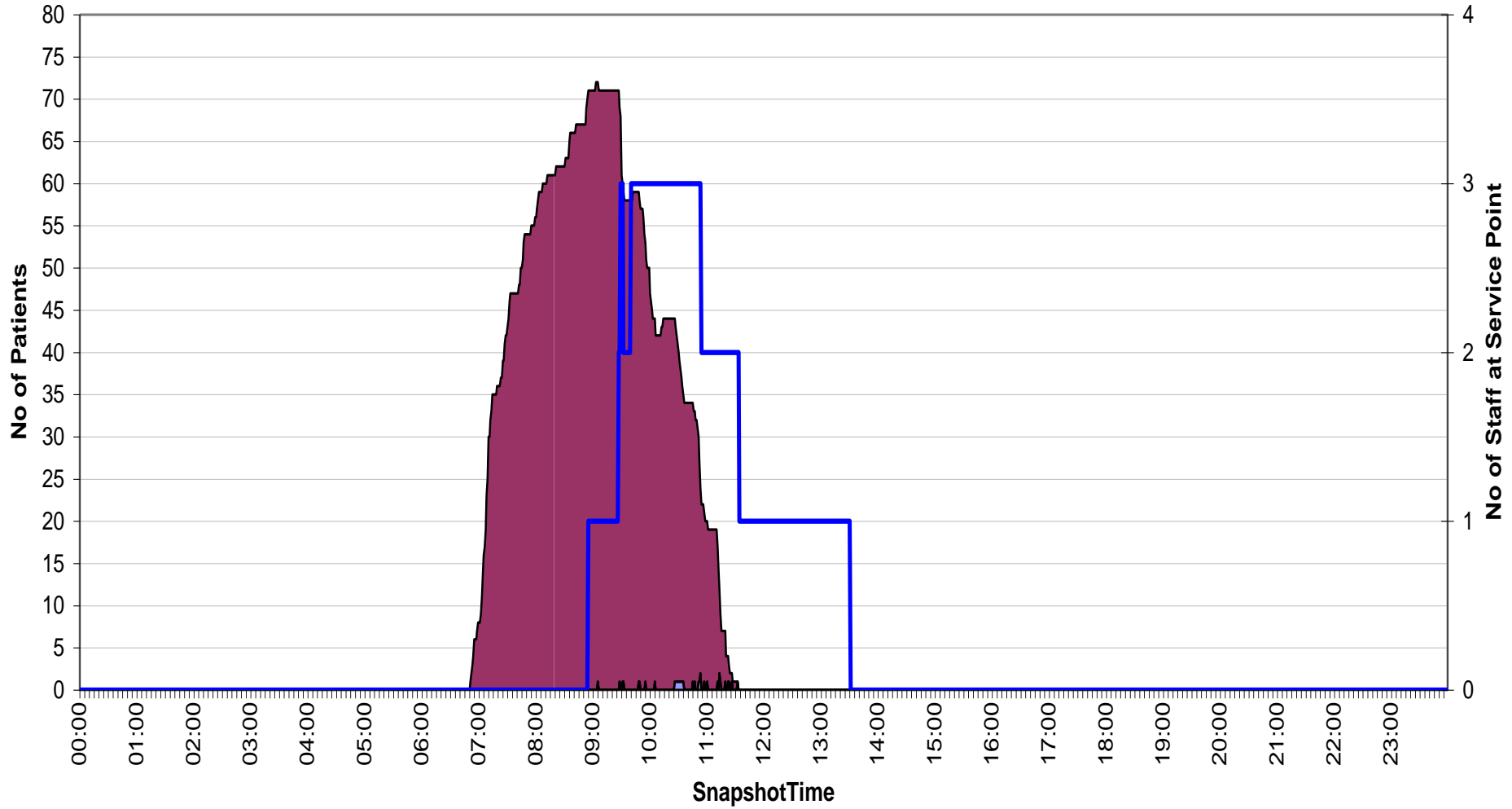
ArrivalTime ▼

Main Causes of Long Waiting Time At Hospital OPDs

1. Arriving in Big Batches early in the morning
2. Mismatch mainly at clinician service points
3. Workload (overloaded) mainly at pharmacy

wc Groote Schuur Hospital : E Consultant ANC Triage

Snapshot of Patients Waiting and those Receiving a Service at any Point in Time

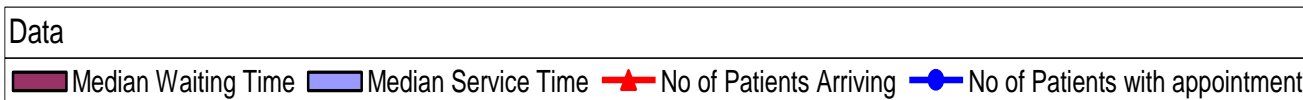
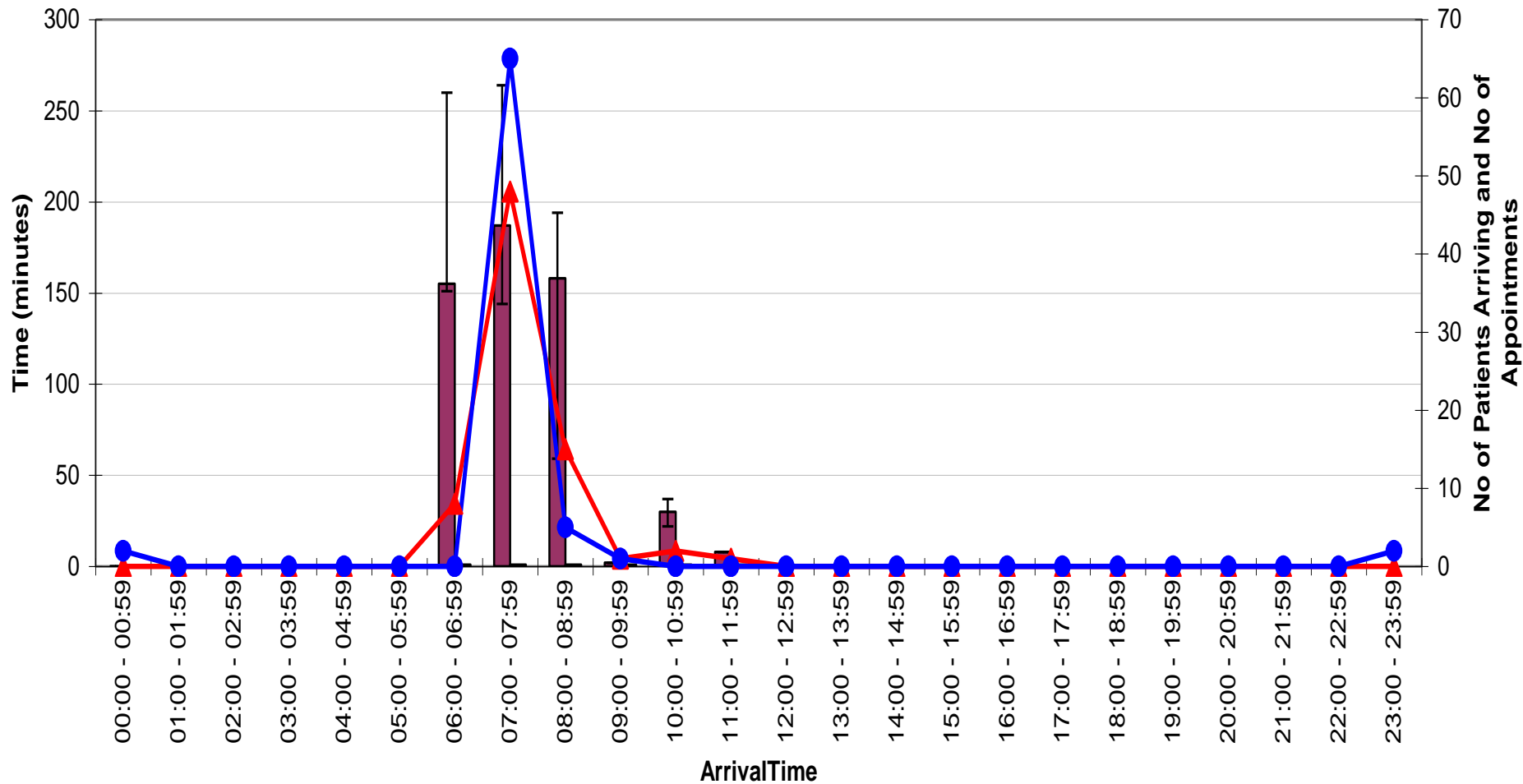


SnapshotTime

wc Groote Schuur Hospital : E Consultant ANC Triage

Waiting Time, Service Time & No of Patients Arriving By Arrival Time

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ArrivalTime

Tygerberg

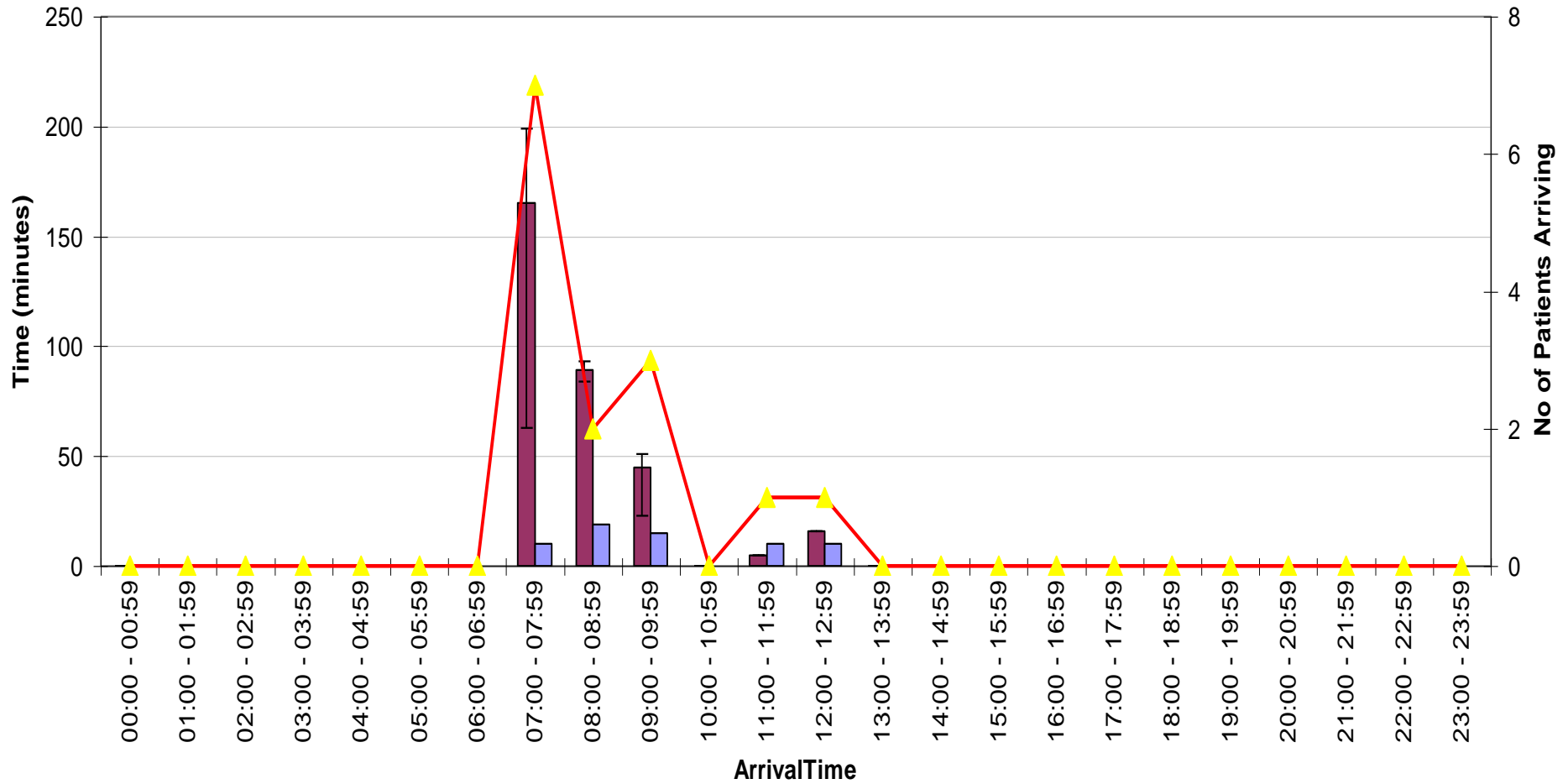
Service Times

Waiting Times

No	Service Point	Number of Actual Staff	Equivalent Staff	Patients Seen	Workload as Patients Seen per Staff per Day	% Staff Time Spent Attending to patient	Med	5%	75%	95%	Med	5%	75%	95%	Possible Logistics Problem
195	C5 B East Mammae Clinic Dr.	4	0.5	14	25.8	87%	12	6	15	45	87	5	165	199	Y U n s p e c i f i e d

wc Tygerberg Hospital : C5 B East Mammae Clinic Dr.

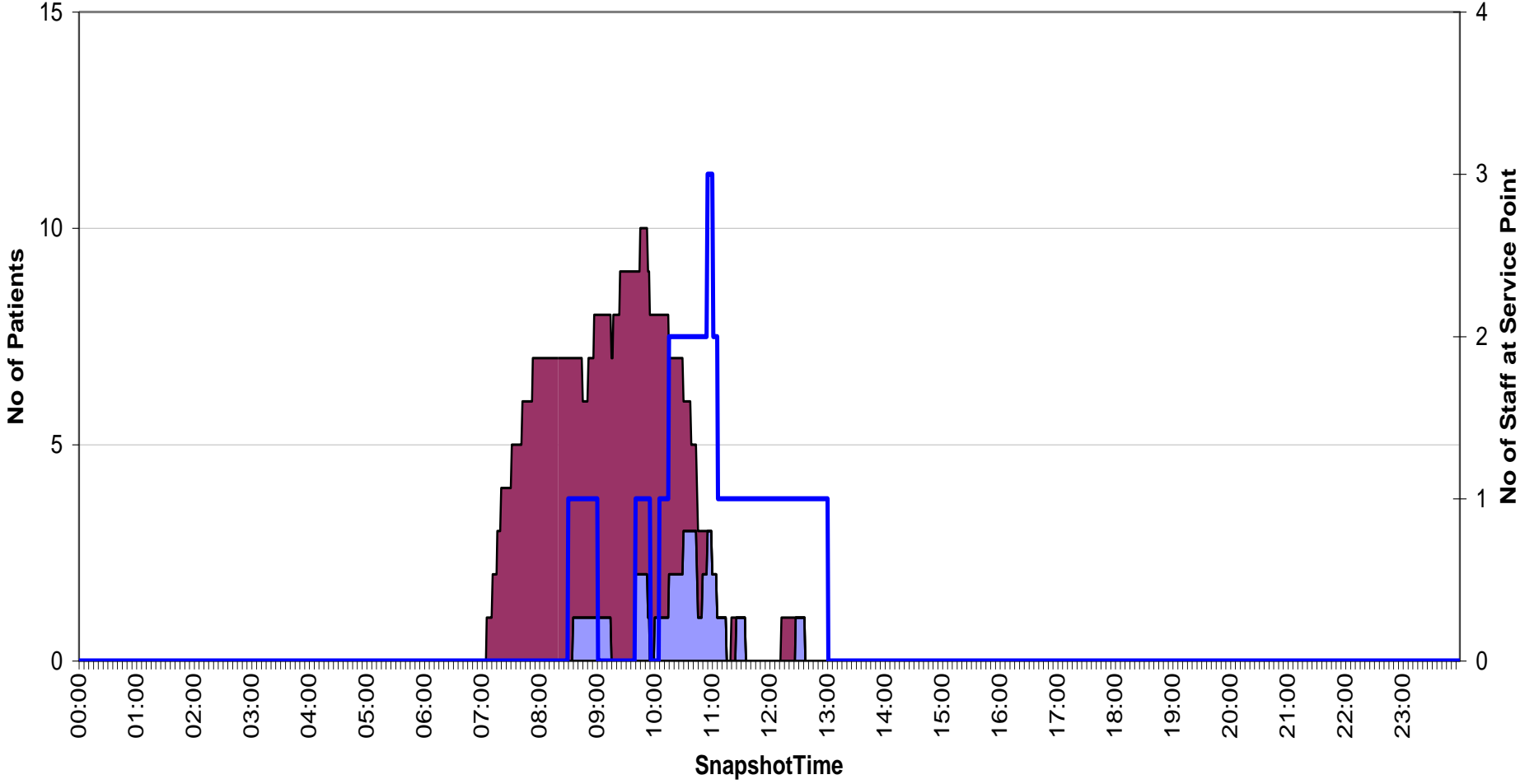
Waiting Time, Service Time & No of Patients Arriving By Arrival Time



ArrivalTime

wc Tygerberg Hospital : C5 B East Mammae Clinic Dr.

Snapshot of Patients Waiting and those Receiving a Service at any Point in Time



Data

■ Sum of PatsServ
 ■ Sum of PatsWait
 — Sum of StaffCount

SnapshotTime

Worcester

Service Times

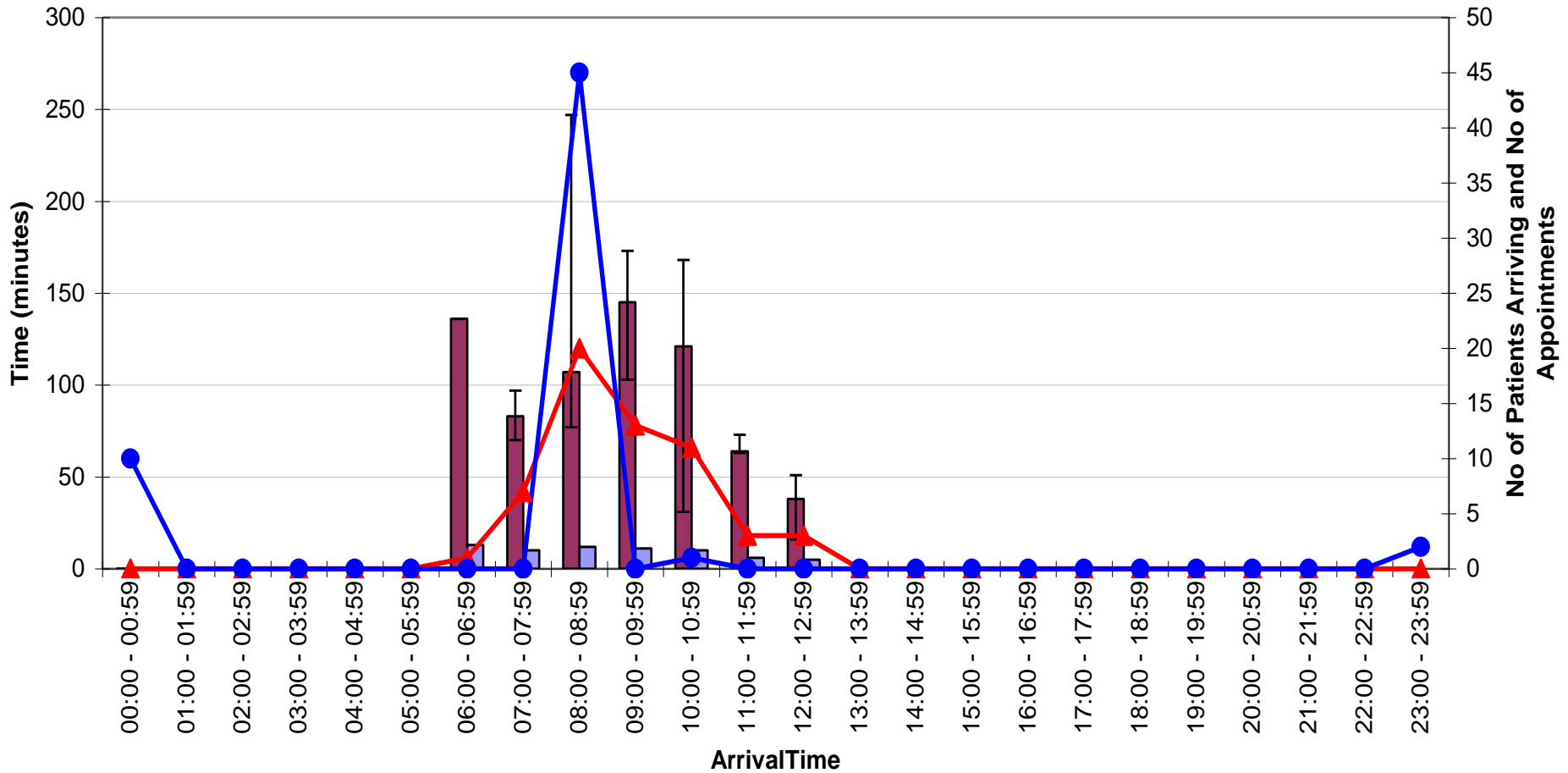
Waiting Times

No	Service Point	Number of Actual Staff	Equivalent Staff	Patients Seen	Workload as Patients Seen per Staff per Day	% Staff Time Spent Attending to patient	Med	5%	75%	95%	Med	5%	75%	95%	Possible Logistics Problem
17	Doctor Orthopaedics OPD	4	2.2	58	26.3	65%	10	3	15	30	112	38	140	191	Y Unspecified

Worcester Hospital : Doctor Orthopaedics OPD

Waiting Time, Service Time & No of Patients Arriving By Arrival Time

No specific time set to 00.00 - 00.59, No appointment set to 23.00 - 23.59



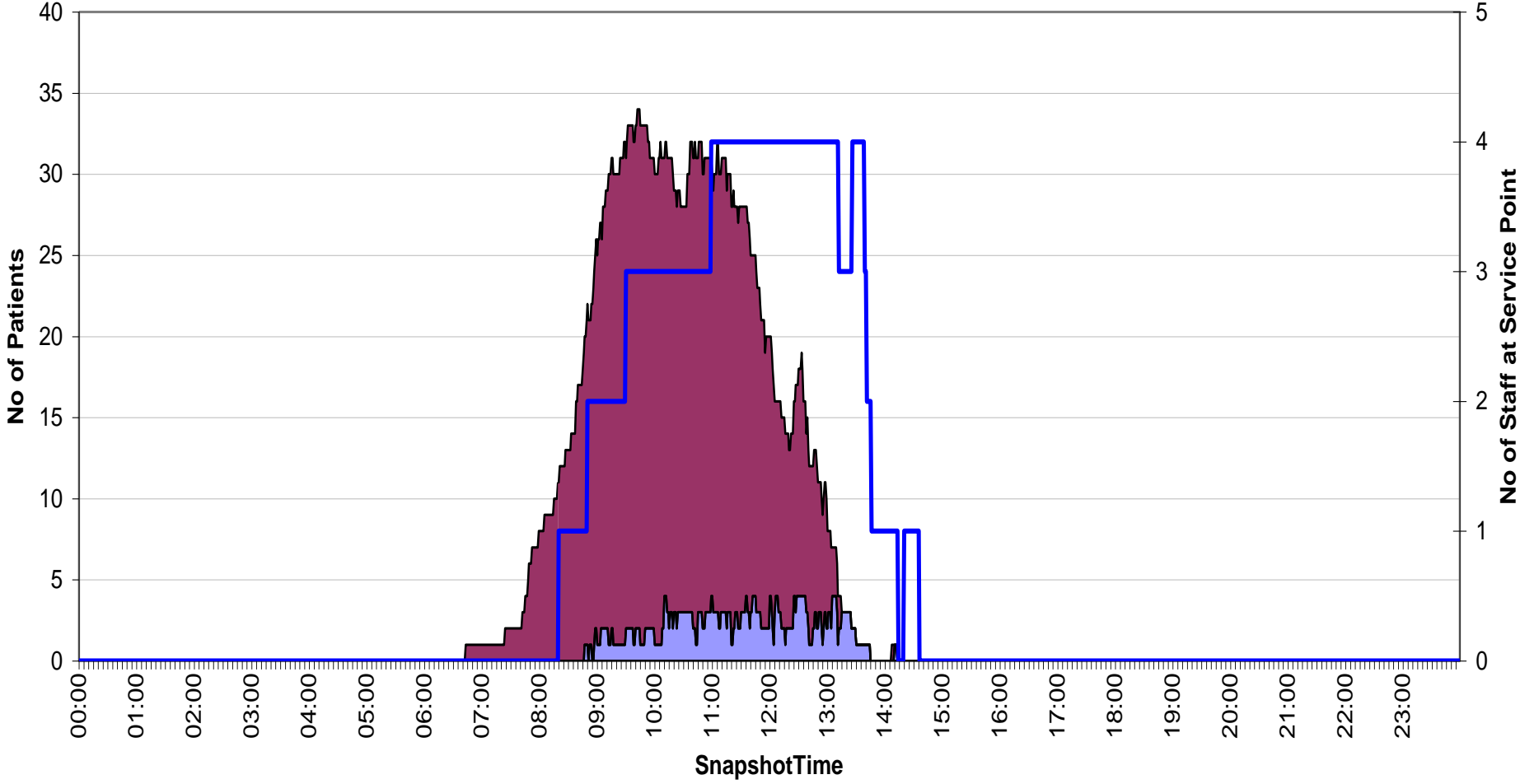
Data

Median Waiting Time
 Median Service Time
 No of Patients Arriving
 No of Patients with appointment

ArrivalTime

Worcester Hospital : Doctor Orthopaedics OPD

Snapshot of Patients Waiting and those Receiving a Service at any Point in Time



Data

■ Sum of PatsServ
 ■ Sum of PatsWait
 — Sum of StaffCount

SnapshotTime

Main Causes of Long Waiting Time at Hospital OPDs

1. Arriving in Big Batches early in the morning
2. Mismatch mainly at clinician service points
3. Workload (overloaded) mainly at pharmacy

						Service Times				Waiting Times				
Service Point	Number of Actual Staff	Equivalent Staff	Patients Seen	Workload as Patients Seen per Staff per Day	% Staff Time Spent Attending to patient	Med	5%	75%	95%	Med	5%	75%	95%	Possible Logistics Problem
OPD Pharmacy Triage Pharmacist	5	1.1	461	432.2	99%	1	1	1	2	24	1	32	54	Y Too little space
OPD Pharmacy Enter & Label	11	3.1	453	144.4	80%	1	1	2	5	23	4	38	68	Y Too little space
OPD Pharmacy Picking Meds	12	3.9	452	115.1	58%	1	1	2	4	15	1	25	51	N
OPD Pharmacy Check Meds	9	3.2	444	139.2	84%	1	1	3	5	16	3	23	41	N
OPD Pharmacy Dispense	8	1.4	390	287.6	75% (150)	1	1	1	2	22	6	30	43	N

Main Causes of Long Waiting Time

1. Arriving in Big Batches early in the morning
Solution: Dynamic Staggered Appointment System
2. Mismatch mainly at clinician service points
Solution: Dynamic Staggered Appointment System
3. Workload (overloaded) mainly at pharmacy and Emergency Units
Solution: Appoint more staff

Summary Table of Interpreted
Results and Recommended
Actions for **Every Service Point**

Service Point Name	Median Waiting Time**	Quality of Care ##	Percent Residual Staff Capacity\$\$	Casual Factors for High Waiting Time Present								Commentary	Suggested Actions
				Inappropriate Arrival Patterns	Mismatch	Overworked	Inefficiency	Logistics	Flow	High Service Time	Illogical queuing		
S21 Reception Eye Clinic	Low	A to E	44%										Doing well in keeping waiting Times low. Keep it up.
S21 Eye Clinic Nurse (General)	High	A to E	44%		X		X					Staff may not have filled in all the patient forms.	1. Remove mismatch by giving patients appointments to arrive later. 2. Improve efficiency by prioritising attending to patients who are waiting to be seen.
S21 Eye Clinic Nurse (Specialist)	Low	A to E	12%		X							Staff was working at reception while patient was waiting.	Avoid mismatch .

Conclusions

- Waiting Time Survey is **Easy** to conduct
- **Staff participation** is fundamental to success
- Waiting Time survey is **Low cost** with **High Benefit**
- Survey not only **Measures**, but also shows how to **Solve** challenges of High Waiting Time
- **Implementing solutions** to reduce Waiting Time is **Key**.
- **Monitoring** implementations is easy, quick, cheap

Sustainability of Future Waiting Time Surveys

- Highly possible since have Customised Survey Tools
 - Database (semi-automated)
 - Data Collection Tools
 - Report templates
- Highly possible since have Standardised Survey Procedures
 - 70% of future survey's work already done
 - Should be quick (output in 6 to 8 weeks) and cheap
- Need to Train Staff to implement the surveys

Thank You

Gavin greagon@uwc.ac.za

Ehi eigumbor@uwc.ac.za