

RELEVANT STATISTICS FOR THE PPP PROJECT IN SOUTH AFRICA

In this section we want to highlight operation facts from our IT operation in the Inkosi Albert Luthuli hospital in Durban. We have selected several key indicators to show our performance in the PPP hospital.

1. NUMBER OF ELECTRONIC MEDICAL RECORDS-EMR (ON HIS)

IALCH is not keeping the classical medical record on paper. All record including complete clinical documentation and patient data are stored as ELECTRONIC MEDIAL RECORD on the servers in the data centre. IALCH has a very large number of repeat cases as the hospital is the only tertiary care hospital in the province of Kwazulu Natal, and therefore treats large numbers of oncology and cardiology patients.

There is a master patient index for each patient so each new event for a patient is stored in the EMR of the relevant person, avoiding separate EMR for repeat patients.

2. OUTPATIENTS REGISTRATION (ON HIS)

Outpatients

Visit Month	2009	2010	2011	2012	2013
Jan	13.694	14.234	14.584	15.046	15.401
Feb	14.560	14.793	15.126	16.161	15.932
Mar	15.658	16.088	16.121	16.104	15.497
Apr	13.696	13.086	13.410	14.311	17.189
May	14.710	14.490	15.290	16.535	17.626
Jun	12.889	13.567	15.739	15.685	14.582
Jul	16.603	14.969	15.416	16.755	17.722
Aug	15.318	9.139	15.892	16.099	16.001
Sep	15.823	13.714	16.256	14.851	15.129
Oct	16.144	15.031	16.011	17.637	17.473
Nov	15.799	15.848	16.926	16.660	16.764
Dec	12.333	11.973	11.213	10.778	
Grand Total	177.227	166.932	181.984	186.622	179.316

3. IMPATIENT REGISTRATION (ON HIS)

Inpatients

Visit Month	2009	2010	2011	2012	2013
Jan	1.672	1.704	1.926	2.015	2.159
Feb	1.702	1.741	1.911	2.108	2.012
Mar	1.850	1.891	2.027	2.055	1.903
Apr	1.621	1.671	1.668	1.902	2.211
May	1.709	1.969	1.978	2.270	2.141
Jun	1.297	1.845	2.000	2.070	1.983
Jul	1.896	1.980	1.985	2.263	2.398
Aug	1.773	1.140	2.139	2.068	2.062
Sep	1.783	1.714	2.093	2.017	2.253
Oct	1.848	2.063	2.078	2.429	2.455
Nov	1.814	2.210	2.131	2.151	2.120
Dec	1.425	1.643	1.595	1.604	
Grand Total	20.390	21.571	23.531	24.952	23.697

4. EMERGENCIES REGISTRATION (ON HIS)

Emergencies

Visit Month	2009	2010	2011	2012	2013
Jan	285	344	292	400	425
Feb	246	259	271	357	370
Mar	304	311	324	371	358
Apr	336	241	265	405	378
May	342	357	282	378	346
Jun	257	299	322	430	349
Jul	269	322	378	390	339
Aug	293	208	363	389	363
Sep	254	245	411	399	397
Oct	272	307	395	404	360
Nov	284	311	380	385	361
Dec	341	346	464	450	
Grand Total	3.483	3.550	4.147	4.758	4.046

5. TRAINING

Hospital Staff Training Statistics (trainee count)

Month	2011 New	2011 Refresh	2012 New	2012 Refresh	2013 Refresh	2014 Refresh
Jan	152	43	267	19	409	15
Feb	144	6	83	73	173	37
Mar	43	6	92	90	131	40
Apr	61	20	98	214	333	42
May	173	-	74	118	247	18
Jun	92	18	56	187	108	6
Jul	260	47	239	71	256	110
Aug	151	317	131	101	67	102
Sep	45	49	106	125	69	172
Oct	81	93	65	98	157	14
Nov	93	61	46	100	137	224
Dec	117	19	112	128		
Total:	1.412	679	1.369	1.324	2.087	780

6. STAFF FIGURES

AME Staff Complement

Description	Count
Administration	2
Business Intelligence (including Manager)	5
Clinical Coders (including Supervisor)	14
Clinical Consultants (including Manager, Lab and SAP Support)	12
Clinical Data Quality (including Supervisor + 2 debtors clerks)	12
Helpdesk (Call management)	2
Queue Marshalls	3
Logistics (Printer, Consumable, Presentation support, including Manager)	5
Operations Manager	1
Technical Engineers (Database Administrator)	1
Technical Engineers (Microsoft, Desktop)	4
Technical Engineers (Server, Linux, Network)	3
Technology Manager	1
Total	65

7. IT DEVICE COUNT

Device Count

Description	Count	UOM
Desktops	1.372	Units
Notebooks	130	Units
Laser printers	174	Units
Label Printers	109	Units
Bar Code Scanners	143	Units
Multi Function Devices	11	Photocopier
Multi Function Devices	16	Print/Scanner/Copy
Physical Servers	20	Units
Virtual Servers	120	Units
SAN Storage (excl PACS)	79	TB
Network Router	1	Units
Network Switch Core	4	Units
Network Switch Access	96	Units
Network Switch Wireless	39	Units
Network Firewalls	4	Units
Network Anti-SPAM	2	Units

8. PRINTING VOLUMES

Printing Volumes

Description	Count	UOM
A4 Pages Printed	480.000	Pages / Month
Labels Printed	193.000	Labels / Month
Photocopies	40.000	Images / Month

9. SOFTWARE SCHEDULE

Software Schedule

Key Medical	Function
BAR	Billing application
Draeger ECG Megacare	ECG charting
Draeger Innovian	Charting System ICU/ Critical care
Lantis	Lantis Medical application for Oncology
iSoft Application Server	Backup of iSoft HIS original Data
Orthoview Workstation	Orthopedics software
Siemens Syngo workflow/Open/Speech/Report	RIS applications
Soarian MedSuite	HIS
Syngo XS	Remote Radiology Imaging

Government / 3rd Party	Function
BAS	SAP to BAS payment interface
NHLS Labtrack Intersystems	Soarian Interface for LAB orders/results
Persal	Government system for payroll

Financial	Function
SAP Enterprise	SAP application environments

Server/Client Software	Function
Adobe Flash Player	Soarian Flash version
Adobe Reader	FREE Desktop software
Adobe SVG viewer	Speedminer Menus
Altiris	Desktop Inventory
BlackBerry Enterprise Server Express	blackberry mail exchange
BMC Footprints	Helpdek/electronic projects management
Cache Database	Database
Chrome	Time and attendance
Cisco Works	Cisco monitoring
Coretalk	SMS software helpdesk
Crystal Excelsius	BI Tool for presentation
Domain Controller 2008	Windows domain environment
Dot Net Framework	Desktop software FREE
Dropbox	Free client software
eDNA client Software	Persal / USB reader
HL Labelling	Barcode printer application for AL numbers
HP Sim	HIS/HR
HP Ux	Server monitoring tool
	Itanium OS

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HST Crystal Solutions	HST Invoice printer reports
Intranet IALCH web	IALCH intranet +published website hosting
IP Mon	Environmental room monitoring
JAVA Runtime	RIS/Soarian requirement FREE
JBOSS	Soarian engine manager
Manage Engine	AD security log reporting
Manage Engine Application Manager	Soarian Jboss management
MCL-NET	Scanning Stores Application
Microsoft Exchange 2007	Email Exchange
Microsoft Office Standard	Office package
Microsoft Sliverlight	Desktop software FREE
Microsoft SQL	Database
Microsoft Visio	Visio diagrams
Microsoft Windows Server	Server
Mozilla Firefox	Soarian/footprints usage browser FREE
MP2 Asset 2000	Stores Inventory
Oculus	Used for HR Scanning +old HIS scans reference
Oracle DB Cluster nodes	Database
Procure Management Software	Network Management Software
Red Hat Enterprise Linux 5 (32-bit)	Server
Red Hat Enterprise Linux 5 (64-bit)	Server
SAP GUI	SAP Client
SEMACOMM	ECG Upload application
Speedminer	Statistics application
Suse Linux Enterprise 8/9 (32-bit)	Server
Symantec Endpoint	Antivirus/Client protection/USB lockdown
Symantec Enterprise Vault	Archiving Email and File
Tacacs AA Software	Cisco VPN Remote Access Authentication
EMC Avamar Backup	Backup Software
EMC Data Protection Advisor	Backup Reporting /GUI admin
EMC Networker	Backup Software
Toad for Oracle	Oracle query client tool
VM infrastructure Manager SRM/DRS	Virtual Infrastructure
VM view	Hospital testing
VM view 5	VDI management
Vmware ESX 5	Vmware for VDI
VNC	Remote Control Sessions
Vmware Infrastructure	Virtual Infrastructure
Web Proxy ISA	Internet Access proxy
Windows 2000	Client OS
Windows XP	Client OS
Zip Central	FREE Zip manager

10. HELPDESK FIGURES

Helpdesk (IT Related Calls)

Call Type	2009	2010	2011	2012	2013
Backup Systems	227	72	92	69	85
Critical Care Systems	207	141	150	118	127
E-mail System	692	573	1.054	1.090	703
Financial & HR Systems	149	209	456	484	403
HIS System	1.411	969	6.923	3.186	2.116
Hardware	3.258	3.863	4.997	4.316	4.459
PACS System	72	81	161	643	351
Peripheral Systems	7.778	4.350	4.607	4.678	4.053
System Response Times	-	4	13	18	14
Total	13.794	10.262	18.453	14.602	12.311

Increase in year 2011 due to migration of HIS & RIS & PACS to complete new systems.