

Jimma University



Jimma Medical Center(JMC)

Software Manual Documentation

Integrated HCI System

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JMC-ICT

2019

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Major Function Integrated HCI Application

1. Patient Registration with:
 - Credit service
 - CBHI patients
 - Health care finance
2. Search service for patient using patient medical record number or using personal ID or mobile number.
3. User account management and monitoring module
4. System statistics
5. System configuration and parameter setting
6. Communication module using text message with any registered users
7. Profile management
8. Report Generation
 - A. Monthly reports
 - B. Quarterly reports
 - C. Personal treatment reports
9. Notice board
10. Registration of new:
 - A. Regions
 - B. Zones
 - C. Woreda
 - D. Kebele
11. Language configuration English and Amharic
12. Database backup and Restore
13. All finance information
14. Patient Batch upload with huge Excel file

1. System Title: Integrated HCI System

Integrated HCI System stands for Health care finance, Credit service and Community based health Insurance together that focus on payment request report monthly and quarterly, quick search patient profile, collection service charge.

2. Accessing Integrated HCI

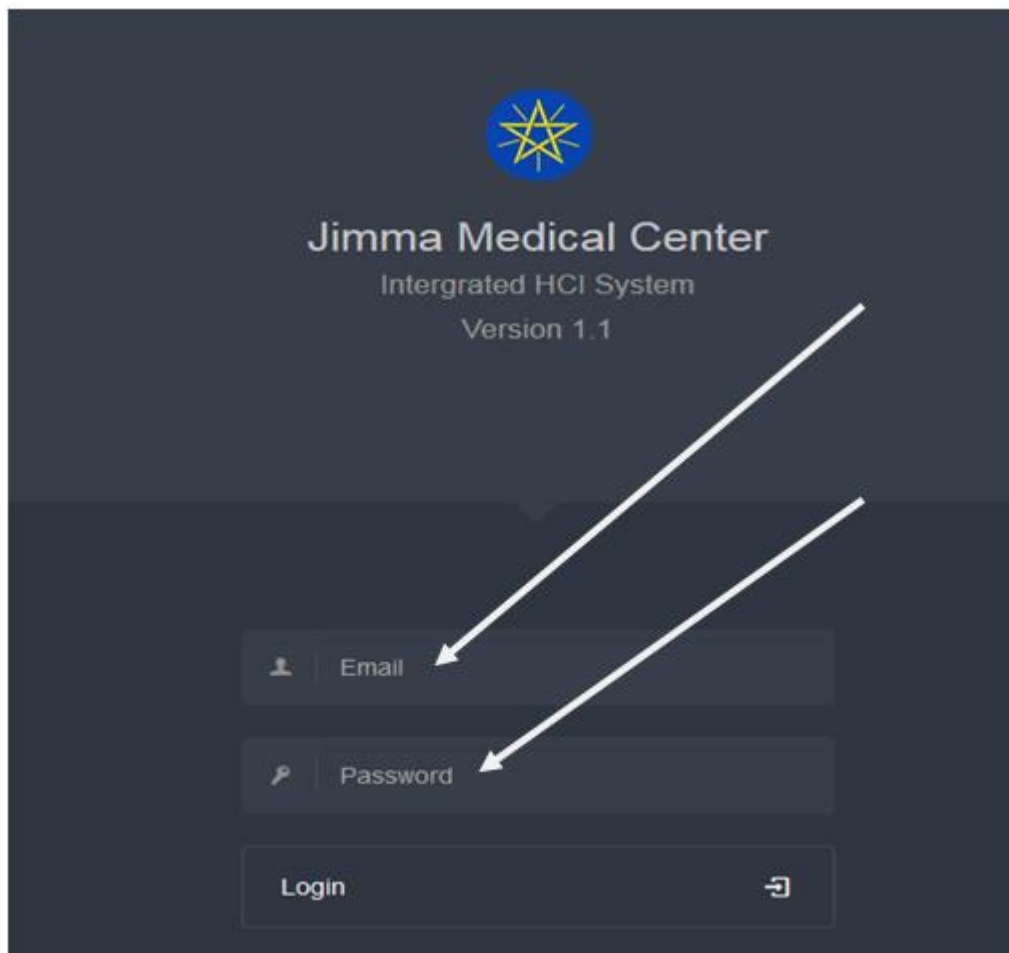
HCH is a web application that can be access using any browser such as Google chrome, Firefox, IE, Sefari, Opera and others



and more

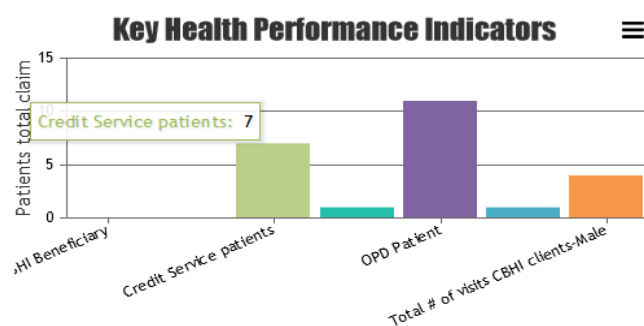
1.1 Login page: user can accessing the system using

- A. Username or Email
- B. Password



2. System Home Page

After the user has been logged in to the system the following page will be displayed.



Trial Version

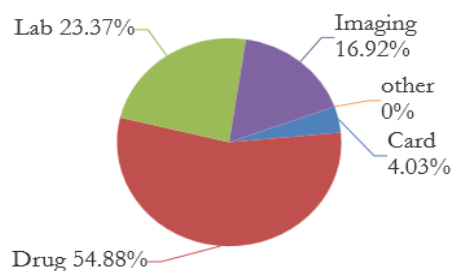
■ Key Performance Indicators

CanvasJS.com

Trial Version

Revenue Per Service type by Percentage[%]

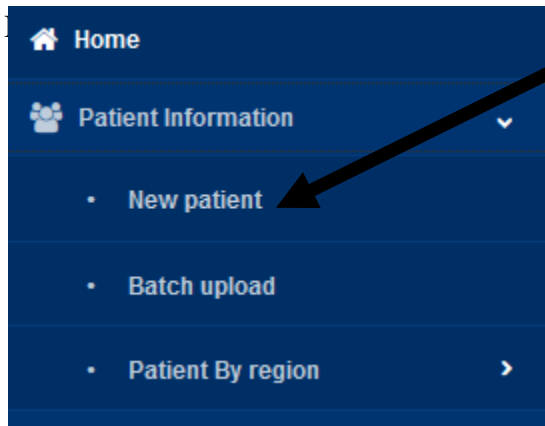
Birr: 1,241.00



CanvasJS.com

3. New Patient Registration module

In order to register to new patient click “ new patient” link then registration page will be displayed. among credit service ,CBHI and Health care finance.



1.

Personal Information

Photo

Upload image(optional)

MRN:

Encounter:

Select

▼

CBHI #ID (Personal ID)/Letter no:

Name of Beneficiary:

First name

Middle name

Last name

Indigent:

Select

▼

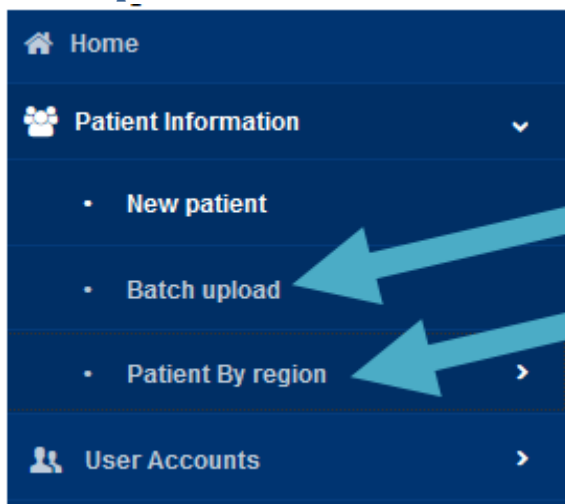
Agreement:

Select

▼

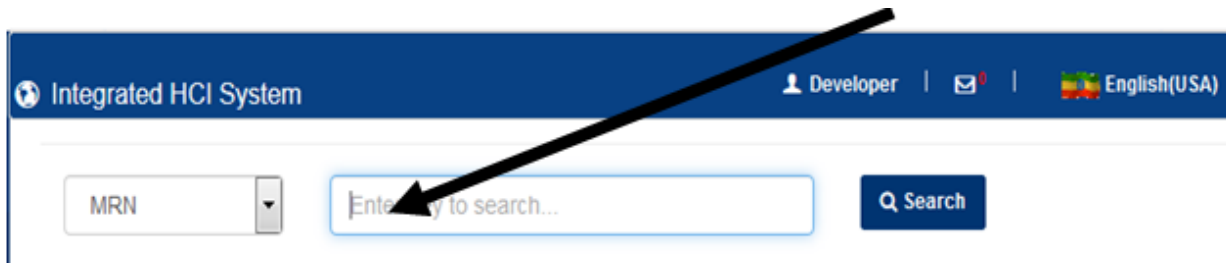
Gender:	<input type="text" value="Select"/>
Region:	<input type="text" value="Select"/>
Zone:	<input type="text" value="Select Region first"/>
Woreda/Town/Organization:	<input type="text" value="Select zone first"/>
Kebele:	<input type="text" value="optional"/>
DD MM YYYY:	<input type="text" value="Day"/> <input type="text" value="Month"/> <input type="text" value="Year"/>
Age:	<input type="text"/>
Phone:	<input type="text"/>

4. Batch upload and View all Patients

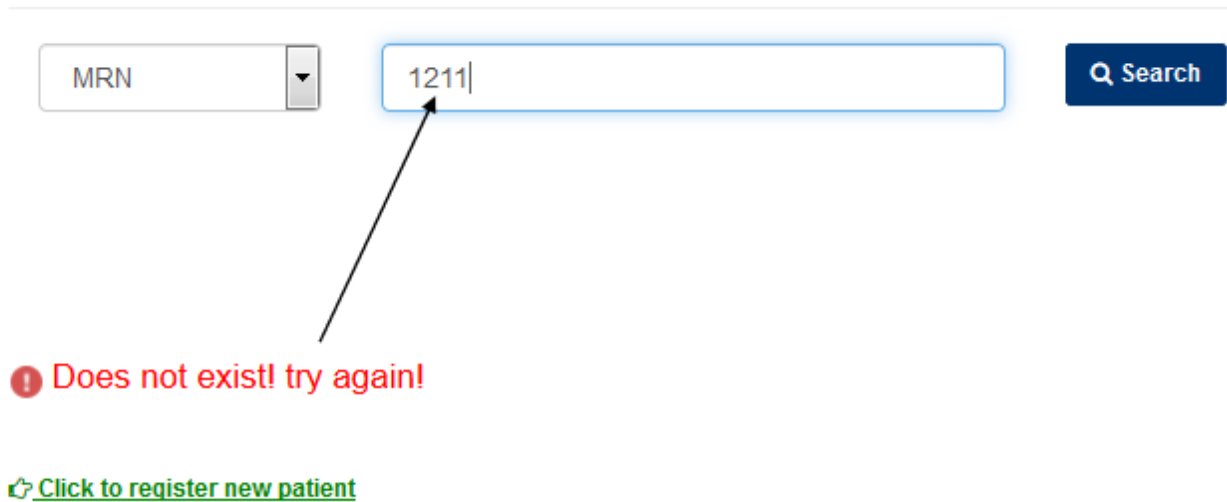


5. Search module

The user can search already registered patient all credit patient, health care finance using phone number, medical record number(MRN) or CBHI #ID of search bar below:



5.1 Unsuccessful search result



If with a given MRN number does not exist, then register as new patient with the above link.

5.2 Successful search Result

After filling required information among phone, CBHI #ID or patient Medical record(MRN). If entered unique ID match with the database, the system display patient profile as follow:



Patient Personal Information

▶ CBHI ID : 477744
 ▶ MRN : 54554
 ▶ Patient type : H
 ▶ Name of Beneficiary:: : ABEBE MUBARK MAMO
 ▶ Phone :
 ▶ Sex: : M
 ▶ Date of registration: : 2013-4-8 E.C.
 ▶ Region : Oromia
 ▶ Zone : Jimma Zone(10)
 ▶ Woreda/Town/Organization : ጠርክላታ ወረዳ(10)
 ▶ Kebele :
 ▶ Age : 55
 ▶ Registered by : Seid Mohammed(Super_admin)
 ▶ Agreement: : CB Health Insurance

[+ Add new encounter](#)
[Old case](#)
[\\$ Calculator](#)
[Edit](#)

Patient Encounter & service Charge Information

No encounter found!!

10 per page

Search:

Patient encounter status					Payment information by services type									
MRN	CBHI Code	Date:	Encounter	Diagnosis	Card	Lab	Imaging	Procedure	Drug	Bed	other	#Total	Remark	Options
#Subtotal_amount(in ETB):					0.00	0.00	0.00	0.00	0.00	0.00	0.00	Birr 0.00		

< >

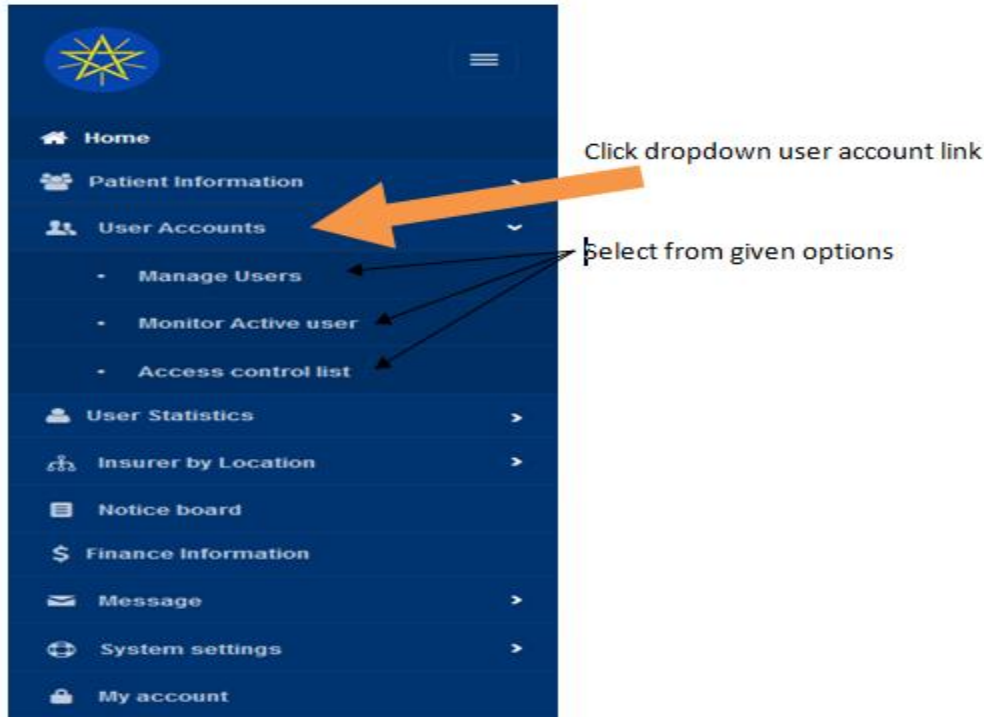
Under this patient profile, the user can do the following transaction based on the privileges.

- Create new encounter
- Add service payment
- Calculate total service cost
- Edit patient profile and encounter
- View treatment and encounter history.

6. User account Management

User account management module prepared for system administration purpose in the following cases:

- Creating user account
- User activity monitoring
- Password resetting
- Checking access control(User IP address, browser and login trials)



click under "Action"

User id	Full Name	Registered on	Active	Email	Phone	Account type	Registered by	Options
1213	Seid Mohammed	Sunday, October 27, 2019	yes	ims@ju.edu.et	0917638874	Super_admin	1213	Root user
1214	Abdilbasit Mohammed	Monday, January 20, 2020	yes	abdiibnumohammed@gmail.com	0917140010	Admin	1213	Action
1215	Abdusemod Ababiya	Monday, January 20, 2020	yes	abdusemod@ju.edu.et	0917548785	Admin	1213	Action
1218	Eliyas Diriba	Monday, January 20, 2020	yes	eliyas@ju.edu.et	0919352512	Admin	1200	Action
1219	Tsegawu Takele	Friday, January 24, 2020	yes	tsegawu@ju.edu.et	0901841121	Admin	1213	Action
1245	Habtamu Mamo	Saturday, February 01, 2020	yes	habtamu@ju.edu.et		User	1213	Action
2020	Hamza Seid	Saturday, February 01, 2020	yes	hamza@ju.edu.et		User	1213	Action
2352	Alemayehu Mamo	Saturday, February 01, 2020	yes	alemayehu@ju.edu.et		Head	1213	Action

Active	Email	Phone	Account type	Registered by	Options
yes	ims@ju.edu.et	0917638874	Super_admin	1213	Root user
yes	abdiibnumohammed@gmail.com	0917140010	Admin	1213	Action
yes	abdusemod@ju.edu.et	0917548785	Admin	1213	Action
yes	elias@ju.edu.et	0919352512	Admin	1213	Profile Reinitialize password Edit Disable Delete
yes	tsegawu@ju.edu.et	0901841121	Admin	1213	
yes	habtamu@ju.edu.et		User	1213	
yes	hamza@ju.edu.et		User	1213	
yes	alemayehu@ju.edu.et		Head	1213	

Under User management tools at the right side of user table, there list above action profile, Re-initialized password, Edit, Disable and move to trash or delete. Those action always carried out by system administrator or super administrator.

- Profile:** this action enable system administrator to view user more details which are registered by admin.
- Re-initialized password :** When the user forgot their password, the system administrator will re-initialize to default password “jimma” the

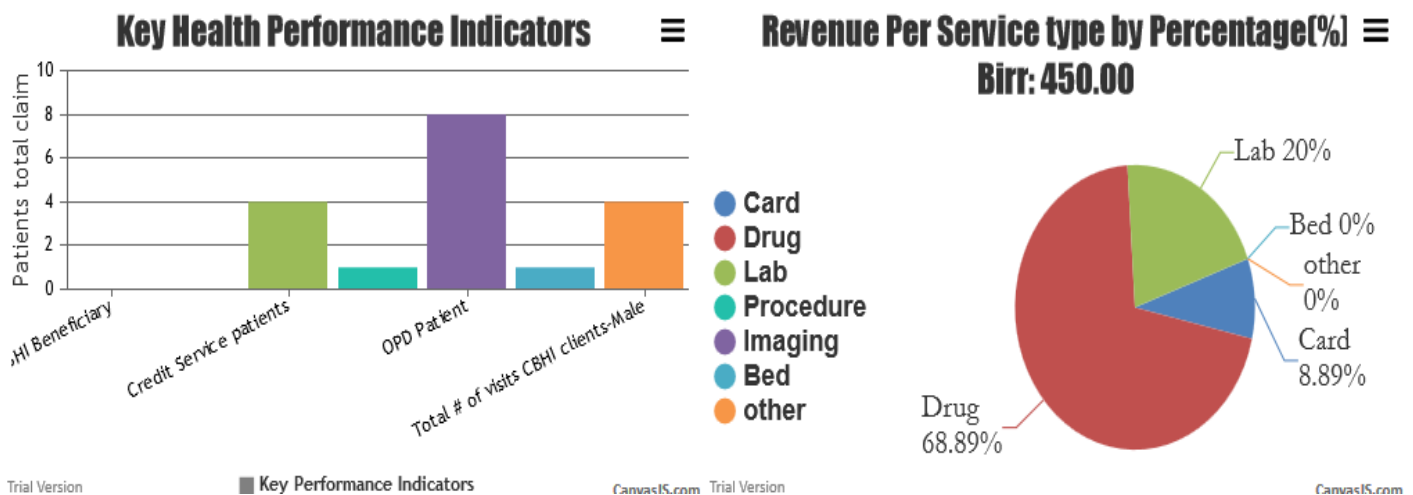
user able to login into the system that will be change password based on user need.

- Edit:** this action also used to update user profile while it is necessary to change already filled as new.
- Delete:** This a strong admin tool can be done only by super admin when it is necessary to move trash while employee or user leave the hospital.

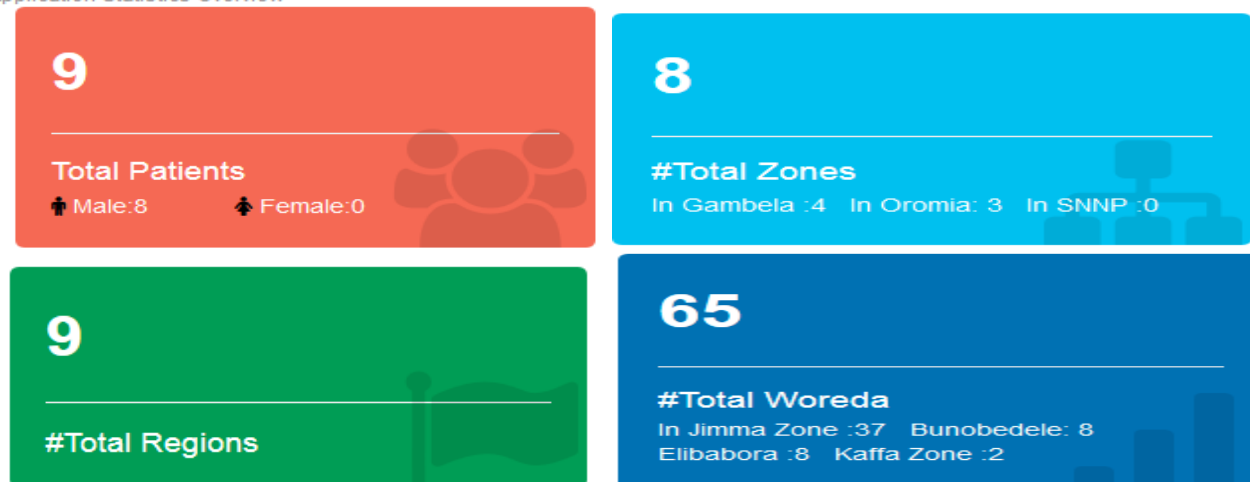
7. System Statistics

The system information module which found mostly on dashboard the includes

- Numerical Patient classification by gender
- Number of Regions , zone, districts and kebeles with graph
- Contracted woreda and organization with respective zones indication.
- Total hospital revenue from community based health insurance, health care finance and credit service.
- Provide percentage information by service type from Card, Laboratory, drug, procedure, imaging, bed and others using pie chart.
- Key health performance indicator using bar graph for the following factors;
 - CBHI beneficiary
 - Credit service patients
 - Health care fiancé users
 - OPD visitors
 - IPD admissions
 - CBHI By gender # female and #Male

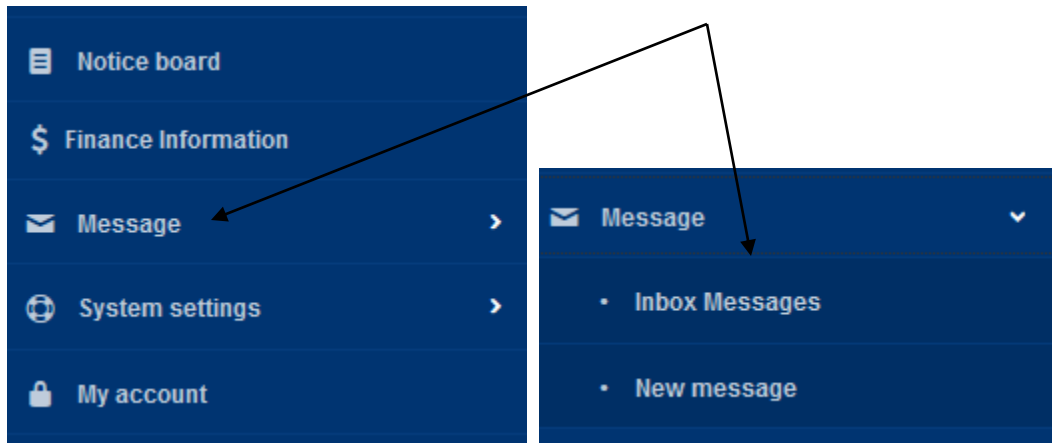


Application Statistics Overview



8. Communication Module

This sub system enable to any user to send private text message to any registered user on the system. It has message threads which allow users to communicate each other.



New message

Abdusemod Ababiya

admin

Tsegawu Takele

admin

Abdilbasit Mohammed

admin

Write your message

Recipient

Select a user

Write message...

Send

New message

Abdusemod Ababiya

admin

Tsegawu Takele

admin

Abdilbasit Mohammed

admin

Abdusemod Ababiya

16 days ago

Hi Selam new? Seid

Delete

Seid Mohammed

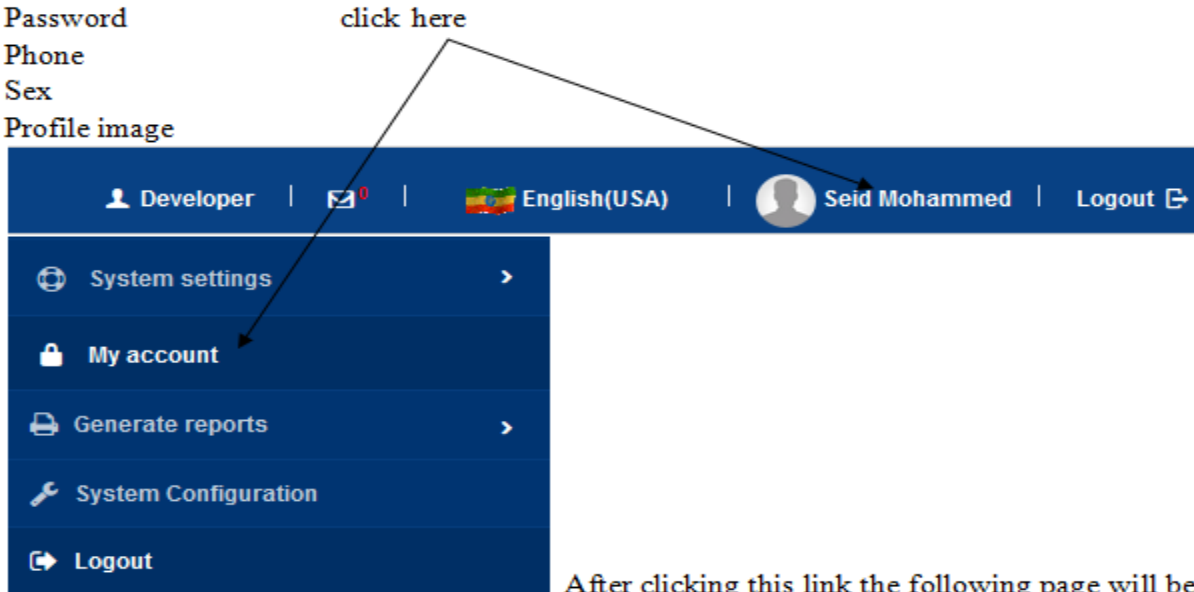
16 days ago

I am fine Long time no see

9. Profile Management

This module enable user to modify their own user account including

- Name
- Email
- Password
- Phone
- Sex
- Profile image



Manage profile

User id: 1213

Name of Beneficiary:: Seid Mohammed

Email: ims@ju.edu.et

Registered on: Sunday, October 27, 2019

Sex: Male

Phone: 0917638874

Role: Super_admin

Photo



Update profile

Change password

Current password:

New password:

Show Password

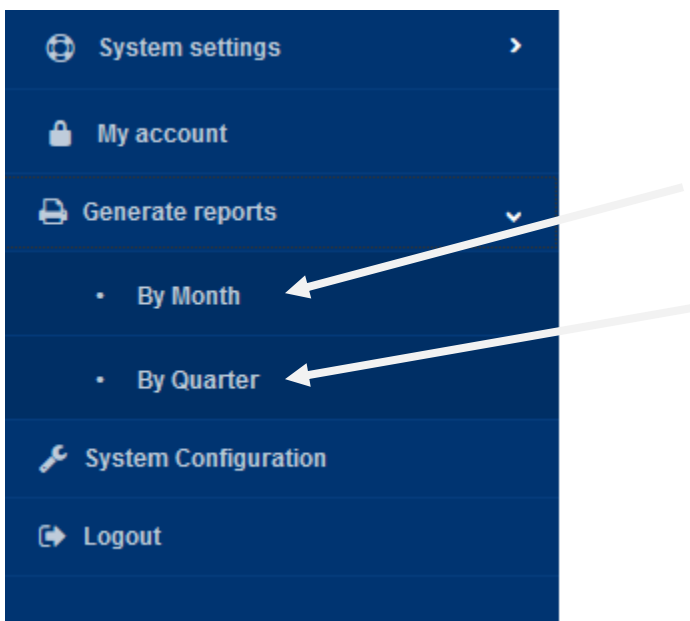
Generate

Confirm new password:

Update password

10. Report Generation

This sub system is very important part of the system that is solve server problems of manual or paper work related to finance. The report can monthly or quarterly report that request payment to districts or organization. This allow the hospital to get its revenue timely with any error made as paper report.



When clicking By Month the following page will be displayed

Generate Monthly Report

Insurer by Location:

Select

Zone:

Select Region first

Woreda/Town/Organization:

Select zone first

Agreement:

Select

Month:

Select

Year:

Select

Create report

- Insurer by location-** You have to select patient region fields. There are all Ethiopian regional states available in selection option.
- Zone -** This selection option depends upon previous selection input above
- Districts or Orginization-** Base on the selection above zone, there will be displayed different woreds and organizations to be selected that indicate patient address.
- Agreement:** this selection can be only three alternatives community based health insurance, credit service and health care finance. Based on patient type the user must be select from given options.
- Month:** this is also the month of report from September up to August from given year.
- Year:** The user must select year of report.

Generate Quarter Report

Insurer by Location

Select

Zone

Select Region first

Woreda

Select zone first

Agreement

Select

Quarter

Select

Year

Select

Create report

- Insurer by location-** You have to select patient region fields. There are all Ethiopian regional states available in selection option.
- Zone -** This selection option depends upon previous selection input above
- Districts or Orginization-** Base on the selection above zone, there will be displayed different woreds and organizations to be selected that indicate patient address.
- Agreement:** this selection can be only three alternatives community based health insurance, credit service and health care finance. Based on patient type the user must be select from given options.
- Quarter:** this is also the quarter of report from consecutive three months started from September
- Year:** The user must select year of report.

11 Registration new User, Region, Zone, Woreda and Kebele

1.

The interface displays a table of existing users and a form to add a new user. An arrow points from the 'Add new user' button in the table to the 'Add user' button in the form.

Phone	Account type	Registered by	Options
0917638874	Super_admin	1213	Root user
0917140010	Admin	1213	Action

Add user form:

+ Add user

User id:

First name:

Last name:

Date of Service Provided:

Gender:

Role:

Phone:

Insurer by Location ▼

- List of regions
- Manage Zones
- Woredas
- Manage Kebele

Notice board

Add new Woreda

▶ Mezhenjer

▶ Gambela town

▶ Anyuake

▶ Nuwer

▶ Elibabor

▶ Jimma

▶ Buno Bedele

▶ Keffa Zone

10 ▼ per page

Search:

Code	Woreda	Zone code	Agreement	Options
01	ጌራ ወረዳ	10	Health Insurance	<div style="background-color: #003366; color: white; padding: 2px 5px; border-radius: 3px;">Action ▼</div>
02	ጉማ ወረዳ	10	Health Insurance	<div style="background-color: #003366; color: white; padding: 2px 5px; border-radius: 3px;">Action ▼</div>
03	ጉማይ ወረዳ	10	Health Insurance	<div style="background-color: #003366; color: white; padding: 2px 5px; border-radius: 3px;">Action ▼</div>
04	ቀርሳ ወረዳ	10	Health Insurance	<div style="background-color: #003366; color: white; padding: 2px 5px; border-radius: 3px;">Action ▼</div>
05	ማና ወረዳ	10	Health Insurance	<div style="background-color: #003366; color: white; padding: 2px 5px; border-radius: 3px;">Action ▼</div>
06	ሊሙ ኮሳ ወረዳ	10	Health Insurance	<div style="background-color: #003366; color: white; padding: 2px 5px; border-radius: 3px;">Action ▼</div>

11. Language configuration

Currently integrated HCI System contains two alternative languages namely English (USA) and Amharic official language of Ethiopia. Another language will be added upon request. So the users work on the system using their understandable system language. So Afaan oromo language will be added in next 2.1 version.

System settings

General settings

Add parameters

Language settings

Backup restore

My account

System email

info@ju.edu.et

English(USA)

english

Text align

left-to-right

Save

Integrated HCI System

ሰላም?

0

አገር

Seid Mohammed

ዘገተህው

ካርድ ቁጥር

Enter key to search...

ፈልግ

ማስታወቂያ ሰልፍ

February 2020

today

Mon

Tue

Wed

Thu

Fri

Sat

Sun

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10

አጠቃላይ የህመማት ብዛት

ወንድ:9 ልጅ:0

የሰራተኛ አጠቃላይ መረጃ

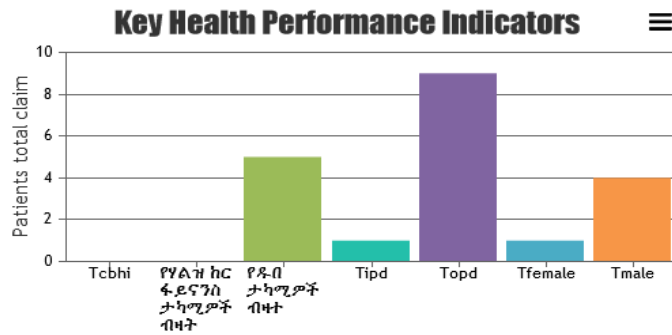
9

#የክልሎች ብዛት

የሰራተኛ አጠቃላይ መረጃ

8

#አጠቃላይ የዞኖች ብዛት

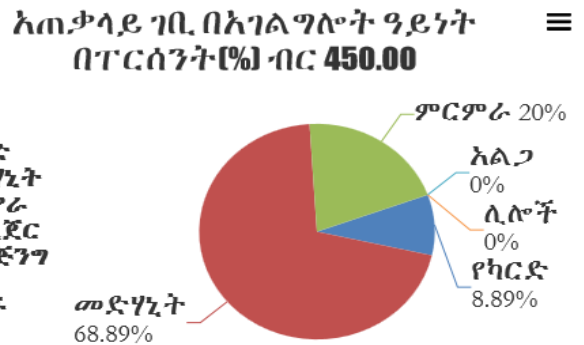


Trial Version

Key Performance Indicators

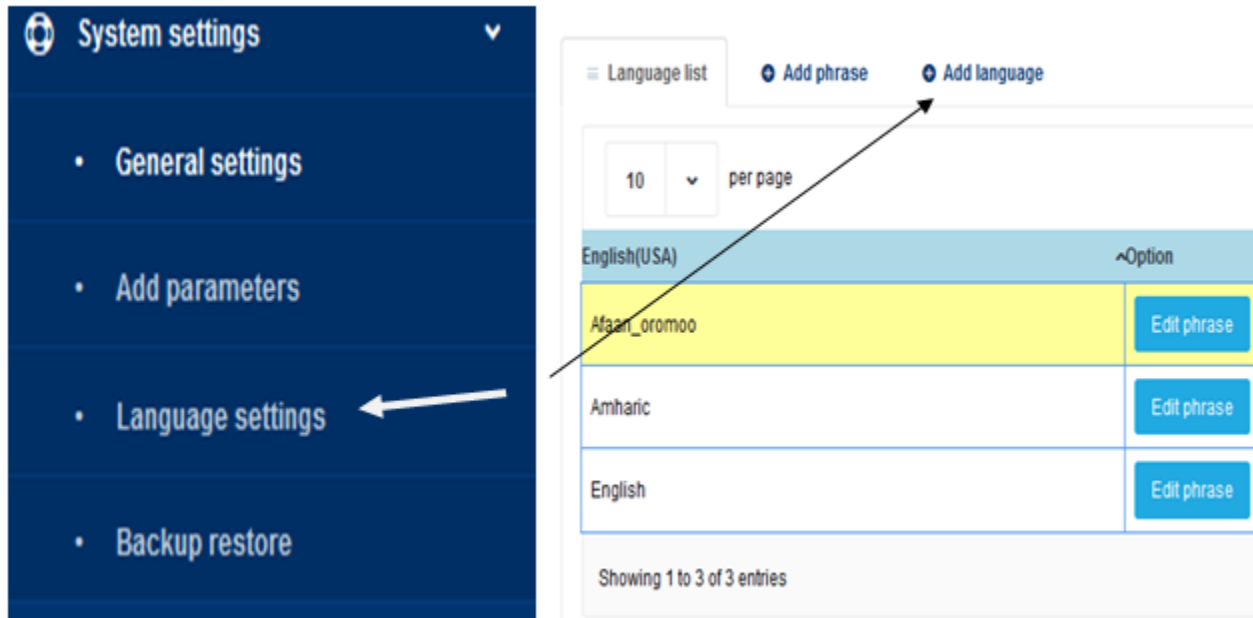
CanvasJS.com

Trial Version



CanvasJS.com

12.1 Adding new Language

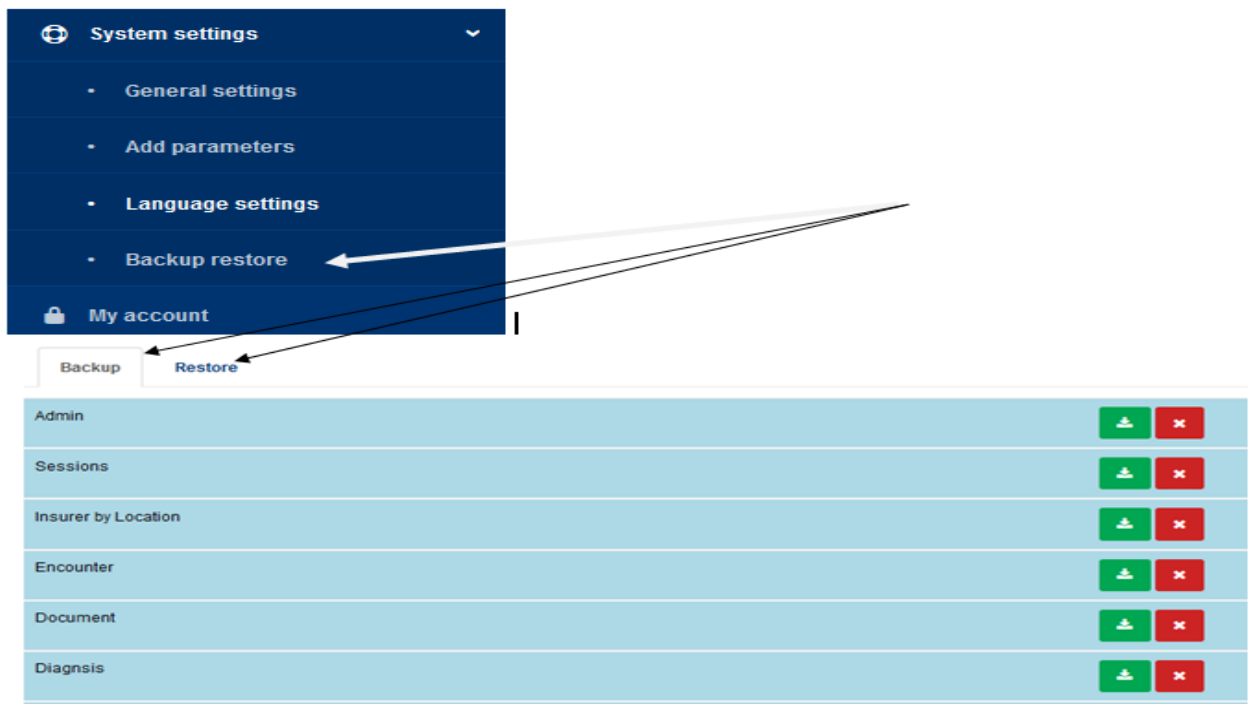


The screenshot shows the 'System settings' menu on the left with options: General settings, Add parameters, Language settings (highlighted with a white arrow), and Backup restore. On the right, the 'Language list' interface is shown. It includes a 'Language list' header, 'Add phrase' and 'Add language' buttons, a '10 per page' dropdown, and a table of languages. The table has columns for language names and an 'Option' column with 'Edit phrase' buttons. The languages listed are English(USA), Afan_omoo (highlighted in yellow), Amharic, and English. At the bottom, it says 'Showing 1 to 3 of 3 entries'.

Language	Option
English(USA)	
Afan_omoo	Edit phrase
Amharic	Edit phrase
English	Edit phrase

Showing 1 to 3 of 3 entries

12. Database Backup and Restore



The screenshot shows the 'System settings' menu on the left with options: General settings, Add parameters, Language settings, Backup restore (highlighted with a white arrow), and My account. On the right, the 'Database Backup and Restore' interface is shown. It includes a 'Backup' and 'Restore' button, and a table of database components. The table has columns for component names and two columns for actions (Backup and Restore) represented by green and red buttons respectively. The components listed are Admin, Sessions, Insurer by Location, Encounter, Document, and Diagnosis.

Component	Backup	Restore
Admin		
Sessions		
Insurer by Location		
Encounter		
Document		
Diagnosis		