

# OpenAMS

SSISA Athlete Management System



# Background

- Jembi entered into a development agreement with the Sports Science Institute of South Africa (SSISA).
- Develop an athlete training and monitoring information system to track high performance athletes and teams.

# Background

- OpenMRS chosen as solution – adapt to suit athlete management.
- Many similarities in patient and athlete management:
  - Encounters and observations
  - Functionality - forms, reports, graphs etc.
  - Provider role matches sports administrator or manager
- Differences in patient and athlete management:
  - Sports admins manage a subset of athletes and teams
  - Athletes manage themselves to certain degree

# Requirements

- Data Model should allow for various sports to be represented.
- There are various participation levels for each sport, e.g.:
  - Federation
  - National
  - Provincial
  - Club, University, School
- At each participation level, there are various teams, squads, or divisions.
- There are various roles that a participant may participate at, e.g.:
  - Athlete
  - Coach
  - Manager
  - Sports Administrator

# Requirements


- There are various playing positions for athletes.
- A participant forms part of a specific team or squad, with an associated role, over a period of time.
- Role based access control:
  - Determined by participation in a sport and associated team or squad during a period of time, with relevant user role permissions.
  - Includes access to:
    - Athletes
    - Forms
    - Reports
    - Sport and team info

# Project Plan

- Stage One:
  - Define concept dictionary
  - Define data model extensions
  - Compile forms and reports
- Stage Two:
  - Extend the framework of OpenMRS to meet requirements:
    - Core changes
    - Custom module development
- Stage Three:
  - Implementation of sports, teams, participation levels, positions and associations.
  - Roll out system.

# Functionality

- Participant Registration



Home | Find/Create Participant | Dashboard | Administration

## Create a New User

\* Indicates compulsory fields

**Name**

First \*

Middle

Surname \*

**ID Number(s) \***

Identifier  Identifier Type  Preferred

**No Identifier known** (If this option is checked, a custom identifier will be auto-generated)

**Profile Image**

No Image Available   (Images must be smaller than 2MB)

**Demographics**

Gender \*  Male  Female

Date of Birth: (dd/mm/yyyy) \*  Estimated

Ethnicity \*  Black / African  
 Mixed Ancestry / Coloured  
 White  
 Indian  
 Asian  
 Other  
 Not Disclosed


# Functionality

- Sport Management:
  - Sports
  - Teams and Squads
  - Team Attributes
  - Participation Levels
  - Positions
- Role based access:
  - Form restrictions
  - Report restrictions
  - Athlete restrictions
  - Search results
  - Administered using custom API:
    - Page filters – limit access to pages based on criteria
    - Data filters – limit access to data returned from database




# Functionality

- Participation



Home | Find/Create Participant

## John Smith

 17 yrs (~29-Jun-1994)

**BMI: ?** ( Weight: 79.7 kg , Height: )

Last encounter: **Monitoring @ Unknown Location, 19-Aug-2011**

You have a unusually small heart rate decrease ,

[Demographics](#) [Graphs](#) [Form Entry](#) [Encounters](#) [Patient Image](#) [Reports](#) [Sport](#) [Participation](#)

### Add Team/Squad Participation

| Team / Squad                              | Role                                 | Position             | Start Date           | End Date (optional)  |                                       |
|---|--------------------------------------|----------------------|----------------------|----------------------|---------------------------------------|
| <input type="text" value="Default Team"/> | <input type="text" value="Athlete"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="button" value="Create"/> |

### Current Participation

| Team / Squad                 | Playing Level | Role    | Position                 | Start Date | End Date             |                                      |
|------------------------------|---------------|---------|--------------------------|------------|----------------------|--------------------------------------|
| <a href="#">Default Team</a> | Club          | Athlete | Hammer Throw (Athletics) | 19/08/2011 | <input type="text"/> | <input type="button" value="Close"/> |

### Participation History

| Team / Squad                 | Playing Level | Role    | Position                 | Start Date | End Date   |
|------------------------------|---------------|---------|--------------------------|------------|------------|
| <a href="#">Default Team</a> | Club          | Athlete | Discus Throw (Athletics) | 01/08/2011 | 24/08/2011 |
| <a href="#">Default Team</a> | Club          | Athlete | Acrobatics (Gymnastics)  | 03/05/2011 | 10/08/2011 |

# Functionality

- Customized graphs
- UI customizations
- Flags and alerts
- Help
- Group testing

# Project Status

- OpenMRS has been configured to suit the athlete management model, and has been customized to allow athletes to be managed by themselves or by a coach or sports administrator.
- Custom modules have been developed covering user interface customization, participant registration, team/squad management, as well as role and permission management.
- Work has progressed to allow for the modeling of SASCOC athletes and sports administrators. A large set of monitoring forms and reports are in the final user testing phase and work has begun on user documentation, group testing and reports as well as individual testing.