**DRegHIS Commonwealth Youth ICT Applications Competition 2016 Proposal**

This submission is being made under the e-health category.

DRegHIS is the name of both a group of developers and the name of the ICT solution they are working on together. The developers are:

1. Gerard Rique
2. Sanjay Dookhoo
3. Jonathan Earle

In most of the developing Commonwealth there is the increasing problem of health centres not having readily available records of their activities for long term planning. Another common problem is most persons are not aware of the length of time they must wait before going to a health centre, this information can be critical for them when determining where to go in an emergency. There have been numerous cases of persons health deteriorate whilst waiting even worsening to a fatal end in some cases.

DRegHIS (Distributed Regional Health Information System) is medical history archive of all patients, nurses and doctors that have registered with the system. In order to be successful the system needs to be implemented with the support of the Ministry of Health of the country in which the system is being installed. Doctors and nurses can enter, view and modify a patients data from any Health Centre where an activity log keeps check of all access made. This activity log can then be used to recover previous data due to any mistakes made or to ensure doctors and nurses do not deliberately enter incorrect data.

A patient’s data is stored on the cloud with a related NFC card or smartphone with NFC capability. This unique smartphone or tag is used to record a person as being in queue at a health centre and access their medical history.

Nurses and doctors are given administrative privileges to edit data. The form of authentication that they will use is a username and password assigned to them.

The system is composed of numerous units, each unit resides in a single health centre. The units upload the appropriate data to a single database in real time which will be the various statistics to be viewed by potential patients.

Each unit comprises of three main components which are as follows:

1. Terminal which allows the user to scan their card or smartphone, with the DRegHis app installed, to enter them into the queue.
2. Monitor with a visual representation of the queue for patients without a smartphone.
3. Queuing software which allows the administrators and medical staff view and manage patients waiting on attendance and those currently being attended to.

The users can access each their own medical history online or in the app as well as the expected waiting time in the waiting queue. The cost to the user is nothing as the cost of the NFC card can be easily paid for by a government as the tags cost approximately 0.80 cents USD and the app will be available for free download.

The cost of purchasing, installing and maintaining a unit can be broken down as follows:

|  |  |  |
| --- | --- | --- |
| **Item** | **Description** | **Price (USD)** |
| Scanner | A scanner which will be used by patients for entering and leaving the queue. | $120 |
| Queue Monitor | A monitor for visualization of the queue. | ? |
| Queue Management Software | Software for management of the queue. | ? |
| Training | Training for the health centre’s staff using the queue management software. | ? |
| Maintenance | Fixing of bugs which may occur during use of the software. | ? |