Scheduled Message Delivery Module

Introduction

This requirements specification provides a complete description of all the functions and specifications of a system that will allow OpenMRS to send messages to specific recipients at a specified point in time.

The expected audience of this document are the development team for the Scheduled Messaging Delivery Module (SMDM) as well as parties interested in the development of this technology.

The SMDM may utilize existing applications with OpenMRS (modules) to facilitate its function. Examples of these include:

- the Messaging Module to facilitate transmission of messages into and out of the system,
- the Scheduling Module to facilitate the timing of message delivery events, and the
- the Reporting Module to facilitate construction of a cohort of patients.

Product Functions

The SMDM will allow users of OpenMRS to send messages to recipients specified in OpenMRS.

1. The messages may be delivered by a number of methods. The messaging module supports a number of methods including SMS and Twitter. For an initial iteration, the SMDM should support delivery of messages via SMS. Therefore the SMDM will need to be cognizant of the character limitations of the intended message delivery mechanism - for example, SMS supports transmission of a message up to 160 characters.
2. The messages may be delivered to any single recipient or a group of recipients within OpenMRS. The SMDM can assume that the addresses for these recipients are already stored via the messaging module. End users of the SMDM may wish to specify a cohort of patients. The reporting module facilitates the creation of cohorts of patients within OpenMRS and may be useful to accomplish this function.
3. The messages may be delivered at any point in time, either now or in the future. The cohort of patients the message is intended for may change depending on when the message is delivered. The scheduling module may facilitate SMDM's ability to support messaging events in the future.
4. Messages may also be sent on a repeating basis, such as a weekly or monthly message. Again, the scheduling module may facilitate this function.

User Characteristics / Use Cases

Heart Health SMS Project

At AMPATH, patients are in the process of being routinely screened for high blood pressure. Some patients fall below 120/80, and require no further observation or therapy. Other patients are higher than 140/90, in which case they must immediately be treated medically for hypertension. However a number of patients fall between these cutoffs. These patients fall into the inclusion criteria for the Heart Health SMS Project. The project will send these patients a weekly SMS message related to improvements in diet and exercise the patients can make to manage their pre-hypertension. After approximately six months, the patients will be retested.