

# Project Plan – IPRO 340 – Spring ‘05

## **PROJECT BACKGROUND:**

Our sponsor is ACCESS HealthCare, which is an organization with over forty different community health centers in Chicago. Thirty-three of ACCESS's health centers have a perinatal treatment program, which is one of the greatest generators of revenue for ACCESS. The perinatal treatment program is inclusive of treatment for women from the time they walk in and test positive on their pregnancy test, through their nine months of pregnancy, and until their child is two years old. Although the perinatal treatment program is successful in generating revenue, it could be more successful and efficient in several ways. First of all, most of the ACCESS health centers are affiliated with Mt. Sinai Hospital, and almost all ACCESS patient deliveries take place at Mt. Sinai hospital. However, many women do not return to Mt. Sinai to deliver their babies, causing ACCESS to lose revenue. Next, some women take their UCG (pregnancy urine dipstick test) at ACCESS health centers, and even when they test positive, they do not return to ACCESS for their prenatal care. Also all of the patient's information is recorded and stored manually in logs; however, this system is inefficient and outdated. Other than that, the perinatal treatment program is quite effective and successful. We will be evaluating the perinatal treatment program at ACCESS's Grand Boulevard site.

## **PROJECT OBJECTIVES:**

The objective of the Immunization group is to evaluate ACCESS Community Health Care's immunization program and provide suggestions for improvements to the program. The focus will be on the implementation the TOTS system (Tracking our Toddlers' Shot) in the program. In order to successfully evaluate the program, the team will visit health centers to investigate the process of immunization from the first time a child is immunized at a center to when all the required shots are administered. This time period includes the time when the child was born up to his/her adolescent age. Our goal is to suggest a method or improvements in tracking the immunization progress of the child once he/she enters an ACCESS site.

## **STEPS TO ACHIEVE THIS GOAL:**

**Step 1:** Gathering information on immunization from ACCESS sites

**Involves:** Preparing interviewing questions for visits to centers  
Visiting centers and interviewing nurses, doctors and anyone involved in the immunization process  
The focus will be on the usage of TOTS

**Product:** Visit two centers per week from the beginning of the semester to midterm

**Step 2:** Provide suggestions on how to improve the overall immunization process

**Involves:** Compiling all data collected from the interviews/visits  
 Create an immunization model  
 Review the model with our sponsor

**Product:** A model of the immunization process

**Timeline:**

<b>Week of</b>	<b>Plan*</b>
January 31 <sup>st</sup>	- Visit Grand Blvd - Revise questions for the next visit
February 7 <sup>th</sup>	- Visit center(s) - Begin outlining the data collected from the visit - Begin formulating or sketching rough models - Continue refining the questions
February 14 <sup>th</sup>	- Visit center(s) - Research on how other health clinics handle immunization - Sketch rough model based on information gained from each visit
February 21 <sup>st</sup>	- Visit center(s) - Sketch rough model based on information gained from last week's visit - Begin creating standard models for visited health centers
February 28 <sup>th</sup>	- Visit center(s) - Sketch rough model based on information gained from last week's visit - Continue refining the initial models
March 7 <sup>th</sup>	- Visit center(s) - Sketch rough model based on information gained from last week's visit - Refine and finalize the models

\*Our goal is to visit at least one to two centers every week.

**EXPECTED RESULTS:**

Our target by the midterm is to visit from one to two ACCESS centers per week from January 31<sup>st</sup> to March 11<sup>th</sup>, projecting a total from 8 to 11 centers. These visits are designed to gather data on the immunization process. This data will then be compiled into flowcharts and models for all the centers visited. All of the aforementioned tasks will be completed by midterm, which is the end of the week of March 7<sup>th</sup>. After midterm, these models are analyzed with our

sponsor, and additional adjustments will be made. Finally we hope that the models can be implemented to improve the immunization process at these centers.

### **PROJECT BUDGET:**

Currently, we have no foreseeable expenses. The traveling expenses of the visits are negligible. The final products, models and flowcharts are predicted to be in electronic form, which can be generated by existing computer programs. Therefore, no budget is projected.

### **TEAM ORGANIZATION:**

The Immunization group:

Team Leader: Joanne Matthews

Group Leader: Reshma Marri

Members: Clara Awosika, Giang Vo

All three members are expected to visit the centers, conduct interviews and observations, and complete all tasks listed above.

## CS Team Project Plan

- I. Analysis of current off the shelf software
  - A. Produce a Report Outlining what systems are currently available **Feb 7**
    1. Present report on preliminary research into VistA's features (M 5)
    2. Explore three other EMRs and report on features (K,M 12)
  - B. Check possible solutions regarding the purchase of current systems **Feb 9**
    1. Call the Briggs Company to see an electronic form exists (J 1)
    2. Download and install VistA to see if it supports automated logs (J,K 10)
- II. Complete Data Model for the automated Hollister and Log systems
  - A. Design a complete Data Model for both Systems **Feb 16**
    1. Create a data model for the Hollister Form (J 12)
    2. Create a data model for the Automated Logs (K 8)
  - B. Implement the System in a live Database System **Feb 21**
    1. Implement the Hollister Form Database (J 5)
    2. Implement the Automated Logs Database (K 3)
  - C. Test input of data into the system using the paper forms **Feb 21**
    1. Enter form data from Hollister forms into the System (M 8)
    2. Enter data from Automated Log sheets into the System (M 4)
- III. Complete Software Requirements Specification
  - A. Decide what changes if any need to be made to the SRS **Feb 23**
    1. Meet to review the Automated Logs SRS (J,M,K 8)
    2. Meet to review the Hollister Form SRS (J,M,K 8)
  - B. Finish Requirements Specification for Automated Logs **Feb 28**

1. Update SRS with new Data model (K 3)
2. Update SRS with any design changes we decide (K 3)
- C. Finish Requirements Specification for Hollister form **Feb 28**
  1. Update Hollister with new Data Model (J 3)
  2. Update Hollister with any design changes we decide (J 3)
- IV. Get Software Requirements Specification validated by Mr. Miller
  - A. Present Mr. Miller with copies of the SRS for both systems **Mar 7**
    1. Update the Automated Logs SRS with suggested changes (K 6)
    2. Update the Hollister Form SRS with suggested changes (J 6)
  - B. Present updated copy of SRS to Mr. Miller and repeat A if necessary
- V. Create Design Documents for each system
  - A. Meet to discuss internal design structure of the system **Mar 9**
    1. Meet to discuss Automated Logs (J,K,M 10)
    2. Meet to discuss Hollister Form (J,K,M 10)
  - B. Create a Design Document for the Automated Logs system **Mar 21**
    1. Complete component level Design (K, 12)
    2. Complete Interface Design Drawings (M, 10)
    3. Design White box and Black box test cases (K 8)
  - C. Create a Design Document for the Hollister Input system **Mar 21**
    1. Complete component level Design (J, 12)
    2. Complete Interface Design Drawings (M, 10)
    3. Design White box and Black box test cases (J 8)
- VI. Create a working Prototype for each system

- A. Create a Prototype of the Automated Logs system **Apr 11**
  - 1. Design HTML Layout of each interface (J,M 20)
  - 2. Program backend of system in either PHP or ASP.NET (J,K 50)
  - 3. Validate the system's compliance to the SRS and DD (M,K 35)
  
- B. Create a Prototype of the Hollister Input system **Apr 25**
  - 1. Design HTML Layout of each interface (J,M 20)
  - 2. Program backend of system in either PHP or ASP.NET (J,K 50)
  - 3. Validate the system's compliance to the SRS and DD (M,K 35)
  
- C. Present Systems to Mr. Glass and Miller of Access **Apr 27**
  - 1. Demonstrate Automated Log system capabilities (J,M,K 6)
  - 2. Demonstrate Hollister form system capabilities (J,M,K 6)