Title: Improving Information Systems in ACCESS Health Care Network

Sponsor: Access Community Health Network (ACCESS)

#### **Goals:**

Our goal was to improve ACCESS Community Health Network's information systems that support the perinatal treatment program in order to enhance the sectors of revenue and quality of care.

### Key Tasks to Accomplish Goal:

- 1. Created charts mapping the perinatal care treatment flow, the perinatal care information flow, and the Mt. Sinai Visit flow
- 2. Determined the critical areas of improvement that hinder the complete success of the program
- 3. Brainstormed rational and plausible solutions to these areas of improvement
- 4. Developed the design for an information system to automate the manual logs for the perinatal treatment program at ACCESS sites.
- 5. Developed a design for an information system to automate the Hollister Maternal/ Newborn Record System form, which is used by the obstetricians at ACCESS sites

### **Critical Issues:**

- 1. Time and effort spent to document and prioritize the problems
- 2. Having to learn the systems development methodology in order to apply it to create two information systems

#### Solutions:

We are designing two information systems – one to automate the manual logs at ACCESS sites that have perinatal treatment programs, so the information becomes readily accessible and the employees are able to devote their attention to more vital tasks. The other system automates the Hollister form, which is a form completed by the obstetrician for every pregnant woman. The information in this form is often duplicated, thus wasting the precious time of the obstetricians. By automating this system, we will be able to pre-populate this duplicate information, saving the obstetrician time, and also ensure that the form will be securely and legally transferred to the hospital where the expectant mother will be delivering.

# Next Steps:

We hope to design and create code for the information systems we have proposed to create, and fully implement the systems at ACCESS's Grand Blvd site. If the systems prove to be successful at the Grand Blvd site, they will be implemented at all thirty-three of ACCESS health centers that have the perinatal treatment program, which will be quite an accomplishment for our IPRO. If time and resources permit, we will also be evaluating and improving the information systems for a new treatment program at ACCESS HealthCare.

#### Faculty Advisor: Dr. Daniel Ferguson

# **Student Members:**

Suman Bir, Chemical Engineering, Junior Jesse Cohoon, Professional and Technical Communications, 5<sup>th</sup> Year Senior Joanne Mathews, Molecular Biochemistry and Biophysics, Junior Armando Limon, Business, Junior Pooja Oza, Molecular Biochemistry and Biophysics, Junior Jason Resch, Computer Engineering, Junior Dhaval Thakkar, Computer Engineering, Senior Karla Wilhoit, Mechanical Engineering, 5<sup>th</sup> Year Senior Parinda Shah, Molecular Biochemistry and Biophysics, Freshman (Team Leader)