



# Using a Perinatal Information System to Integrate Obstetrical Services between a Health System and Regional Health Departments



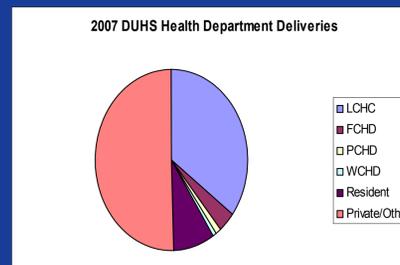
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## INTRODUCTION

As a world-class academic and health care system, Duke Medicine strives to transform medicine and health locally and globally through innovative scientific research, rapid translation of breakthrough discoveries, educating future clinical and scientific leaders, advocating and practicing evidence-based medicine to improve community health, and leading efforts to eliminate health inequalities (Duke Medicine Mission Statement 2006). In 1999 there was no greater challenge than accessing clinical information across the broad continuum of obstetrical care in a health department high risk referral area known as Area K. North Carolina is divided in regions and subdivided into areas for outreach education based on tertiary referral patterns. Duke Health System supports Area K, which encompasses Franklin, Person, Warren and Durham County Health Departments. In 2007, Duke Health System had 5500 deliveries. Approximately 33% of these individuals received their prenatal care in the health department setting. The Department of Obstetrics and Gynecology partners with the local health departments to provide quality obstetrical care by placing physicians and midwives in the local health departments. Patient care records were in paper format due to lack of technical and financial resources within the health department. Duke University Health System, as part of their commitment to community outreach services, invested over \$3 million in the purchase, design and ongoing support of an electronic perinatal information system. This system is currently used in all inpatient, outpatient and health department settings thus supporting the continuance of care. This electronic perinatal information system helps us enhance the alignment and integration of all obstetrical services, defining a common platform for documentation and communication of pertinent patient information. Network and implementation design has eliminated the risk of losing protected health information, reduced delays in obtaining patient information and enhanced patient safety and quality of care. In addition this system has streamlined our documentation while ensuring our compliance with state and regulatory guidelines. At Duke we continue to respond to many rapid and dramatic changes in the field of obstetrics and health care in general. We will continue to develop new approaches and embrace innovative technologies while partnering with our local health departments to continue to provide highest quality and safe patient care.

## OBJECTIVES

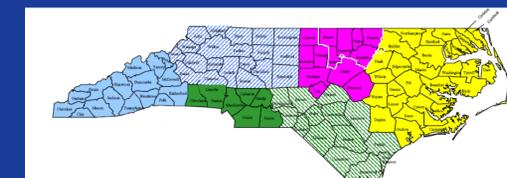
- Provide accurate and consistent patient information across the continuum
- Optimize the implementation and use of a perinatal information system between a Health System and Regional Health Departments
- Create standardized Policy and Procedures to cross all entities
- Enhance compliance with regulatory agency reporting
- Improve accuracy of perinatal database for statistics and research



FCHD	124	25	149	3
PCHD	31	25	56	1
WCHD	29	0	29	0.5
Resident	287	0	287	5
Private/Other	1647	1984	3631	66.5

## IMPLEMENTATION

- Process analysis and workflow diagram completed by system administrator
  - lack of hardware for web-based access
  - inconsistent documentation practice
  - inconsistent interpretation of state regulatory requirements
- Resources allocated from health system for system administration and user support for health departments
- Needs identified and quarterly meeting established between Area K, health system, and state regulatory agencies
- Incorporated into Performance Improvement Plan



## OUTCOMES

- Duplicate documentation eliminated
- Achieved collaborative, interdisciplinary documentation
- Increased user's satisfaction
  - streamlined approach to documentation
  - accuracy of maternal and newborn information
  - positive budget impact
  - additional time in direct patient care
- Closer alignment with strategic goals of the health system
- Improved compliance with state regulatory reporting

## OB TRACEVUE AT DUKE UNIVERSITY HEALTH SYSTEM

