## VISUALIZING NEW YORK STATE MATERNITY DATA AND BIRTH TRENDS

DENISE SISON



### HOSPITAL MATERNITY INFORMATION: BEGINNING 2008

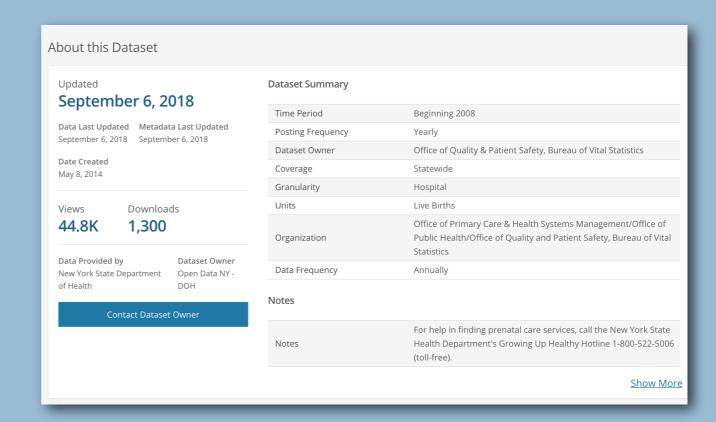
- Maternity Information Law
  - require hospitals to provide information about its childbirth practices and procedures
- Individuals , esp. expectant mothers
  - Expect
  - Childbirth choices
  - Plan



## HOSPITAL MATERNITY INFORMATION: BEGINNING 2008

- Counts and Percentages
- Hospital fewer than 200 births a year
  - Special procedures ~ change rates
- Specialized services to women
  - Complicated or high risk births
  - Babies not expected to develop normally
  - Higher rates of special procedures





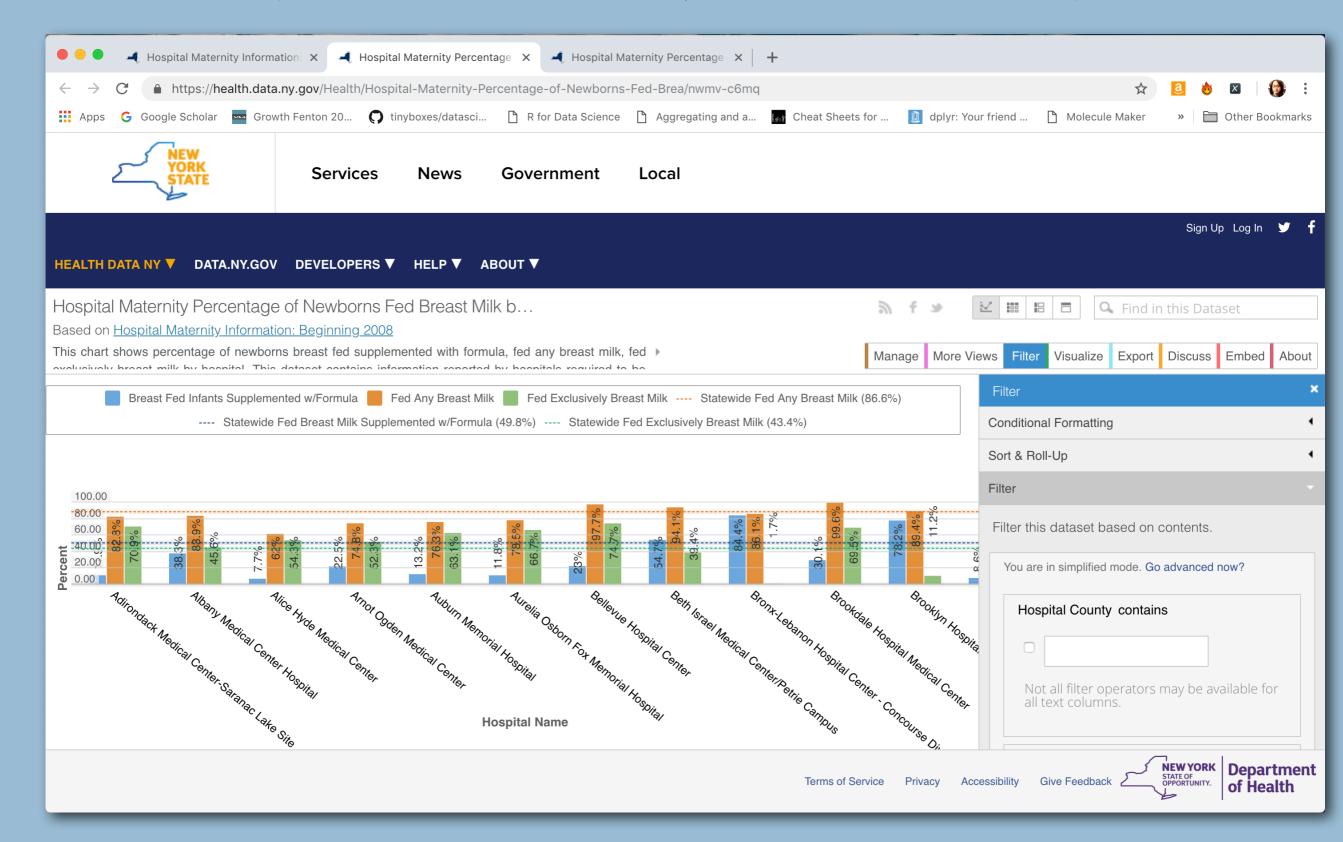
Trends Over Time



# HOSPITAL MATERNITY INFORMATION: BEGINNING 2008

- NYS data from 2008 until 2016
- 146 Hospitals State and Private
- 52 out of 62 Counties
- Missing data:
  - 10 Counties (Delaware, Essex, Greene, Hamilton, Herkimer, Schoharie, Seneca, Tioga, Washington, Yates

#### NYS DOH DATA VISUALIZATION



### A NEW PERSPECTIVE OBJECTIVES IN MAKING MY SHINY APP

- Spatial Visualization
  - Where in the state
  - higher/lower incidences of specific measures
  - clusters/pockets
- County Trends vs Hospital Trends
- Trends Over Time
- Find Top counties
- Compare to Statewide data

#### APP INTERFACE



#### Introduction

New York State's Maternity Information Law requires each hospital to provide information about its childbirth practices and procedures. It aims to help individuals, specifically expectant mothers, to understand what they can expect, learn about childbirth choices, and plan for their baby's birth.

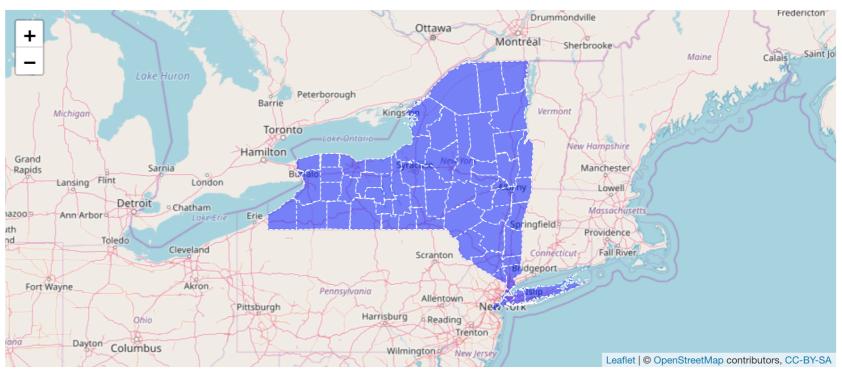
Most of the information is given in percentages of all the deliveries occurring in the hospital during a given year. For example, if 20 births out of 100 are by cesarean section, the cesarean rate will be 20 percent.

If a hospital has fewer than 200 births a year, the use of special procedures in just a few births could change its rates. The types of births could affect the rates, as well. Some hospitals offer specialized services to women who are expected to have complicated or high-risk births, or whose babies are not expected to develop normally.

These hospitals can be expected to have higher rates of the special procedures than hospitals that do not offer these services.



Exlpore the map of New York State. Familiarize



### FUTURE IMPLEMENTATIONS ADDING STATE DEMOGRAPHICS AND INFANT DATA

- Include missing counties
- Update with more recent data, once available
- County demographics, maternity data, infant data
- Add feature to compare metrics
- Maternity Data and Infant Data:
  - Special procedures during delivery
  - Birth weight vs
  - Gestation at birth vs Route & Method of Delivery
  - Factors that predict a certain metric

