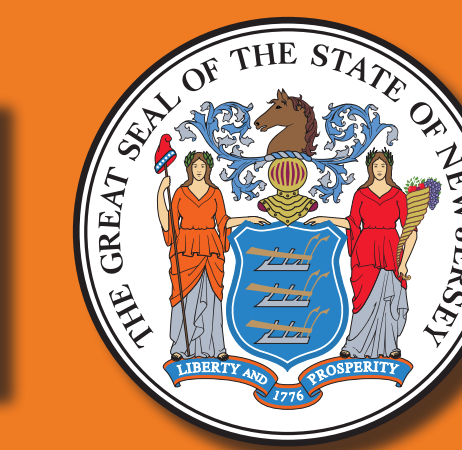# Public Health Data Visualization Successes
Indicator-Based Information System for Public Health (IBIS-PH) Community of Practice
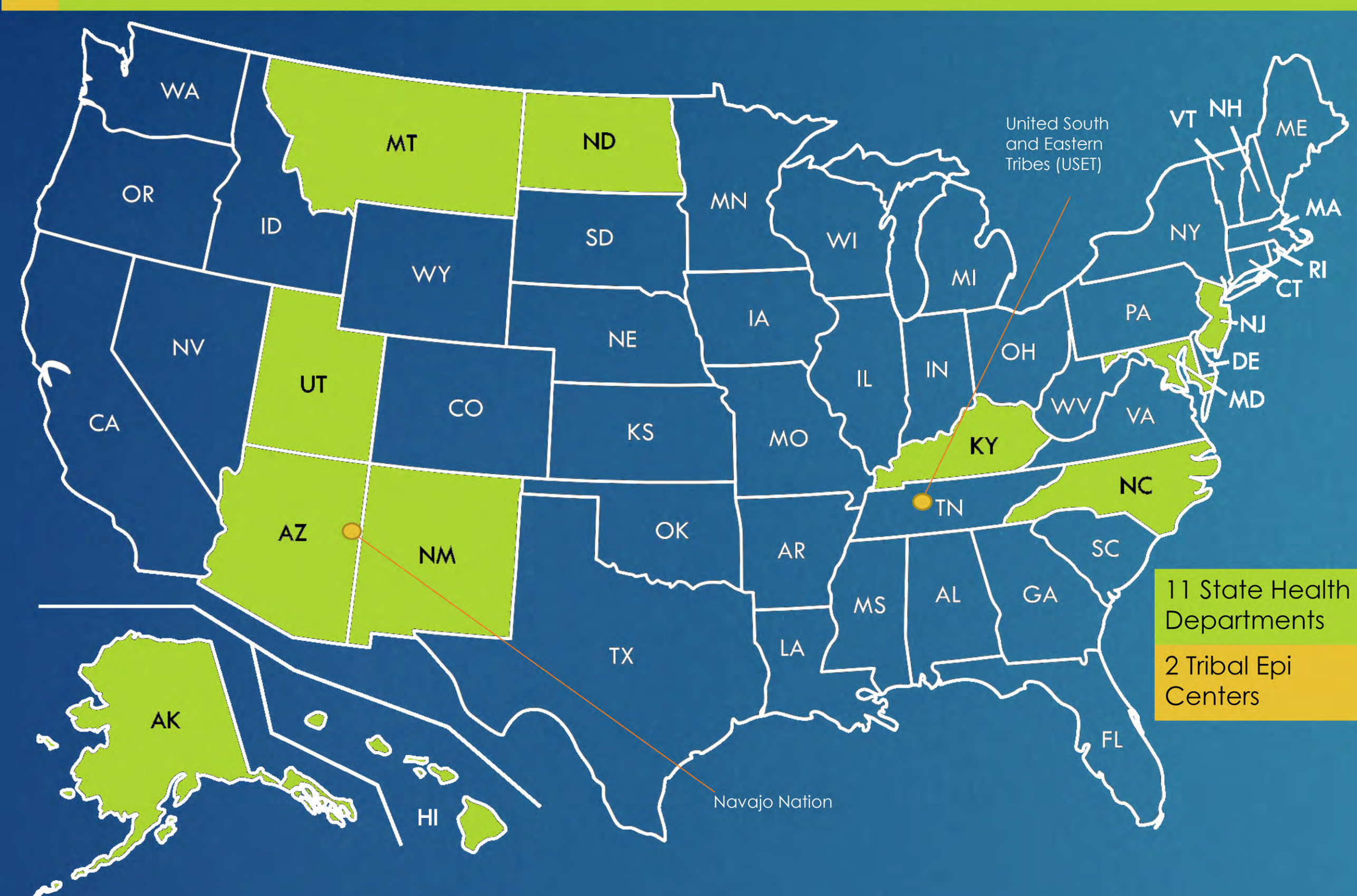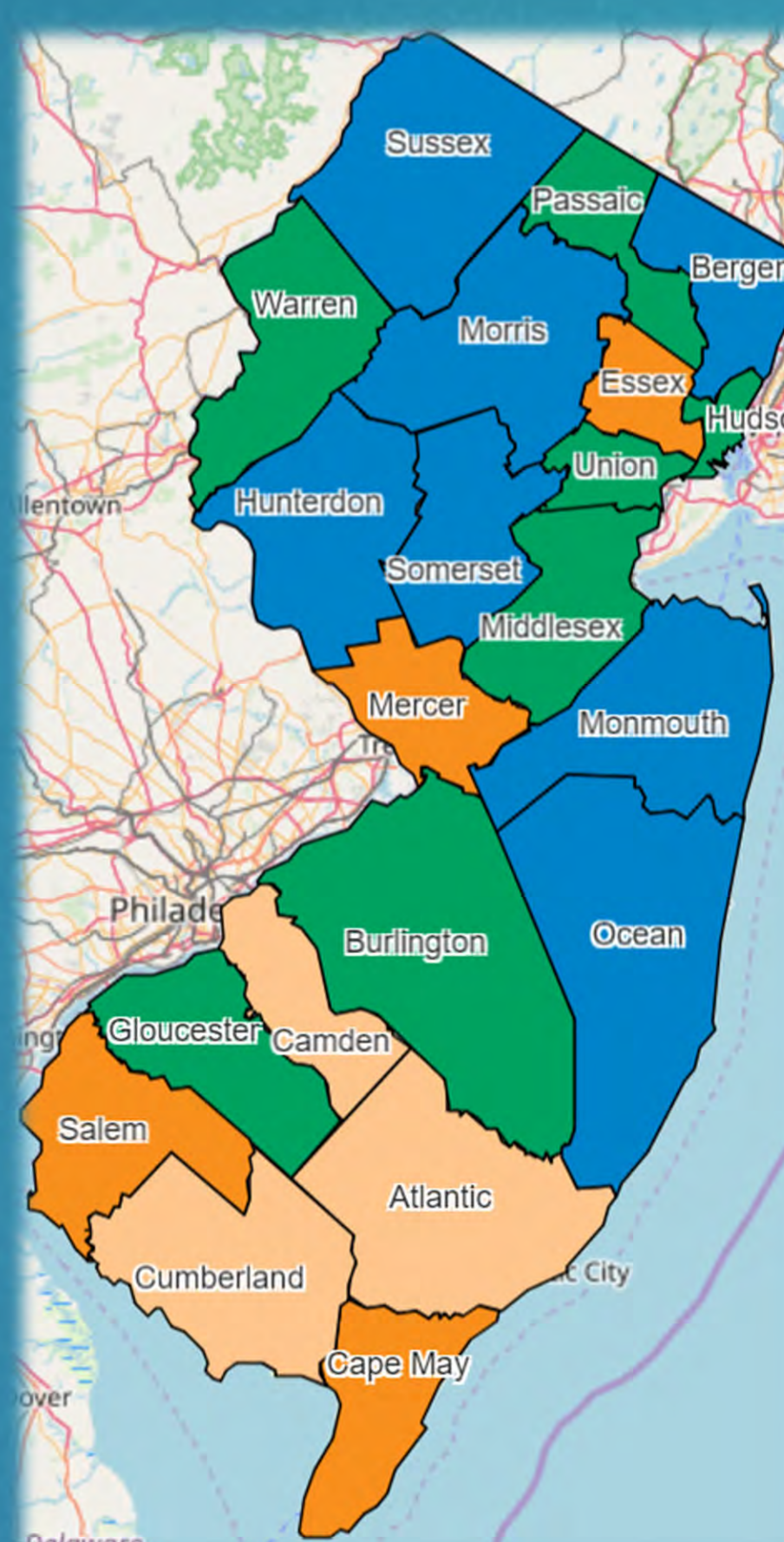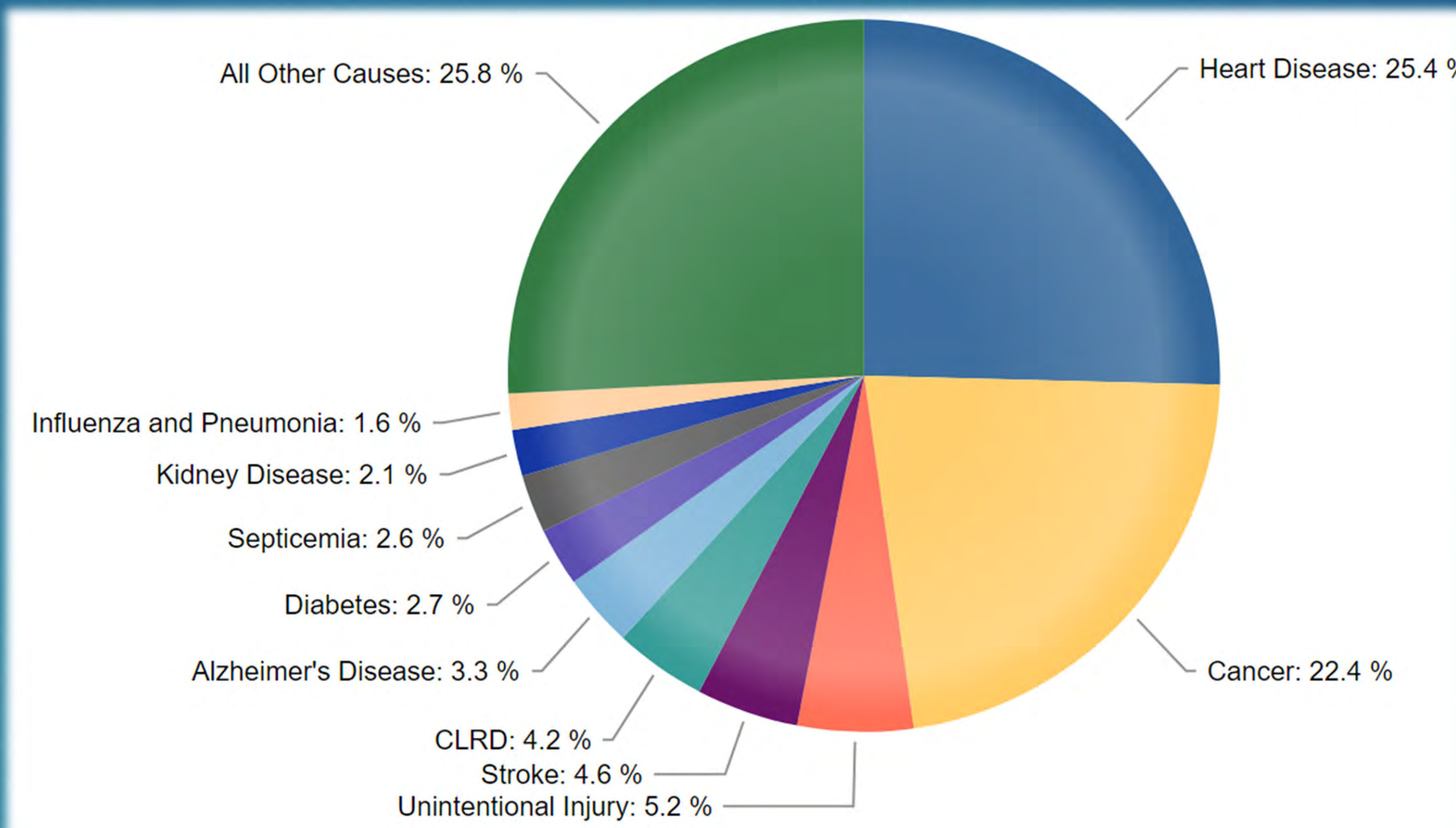
Maria Baron, New Jersey Department of Health

What is IBIS?

- IBIS is a set of **open source software** that provides real time querying of SAS datasets, centralized management of indicator profiles, and automatically-generated community profiles all in one system.
- IBIS produces data tables, comparisons, graphs, and maps.
- Indicator report templates allow staff throughout your organization to create and update their own reports.
- Community profiles are populated automatically by the indicator reports.
- The query system uses micro-level data to produce virtually limitless combinations of variables.
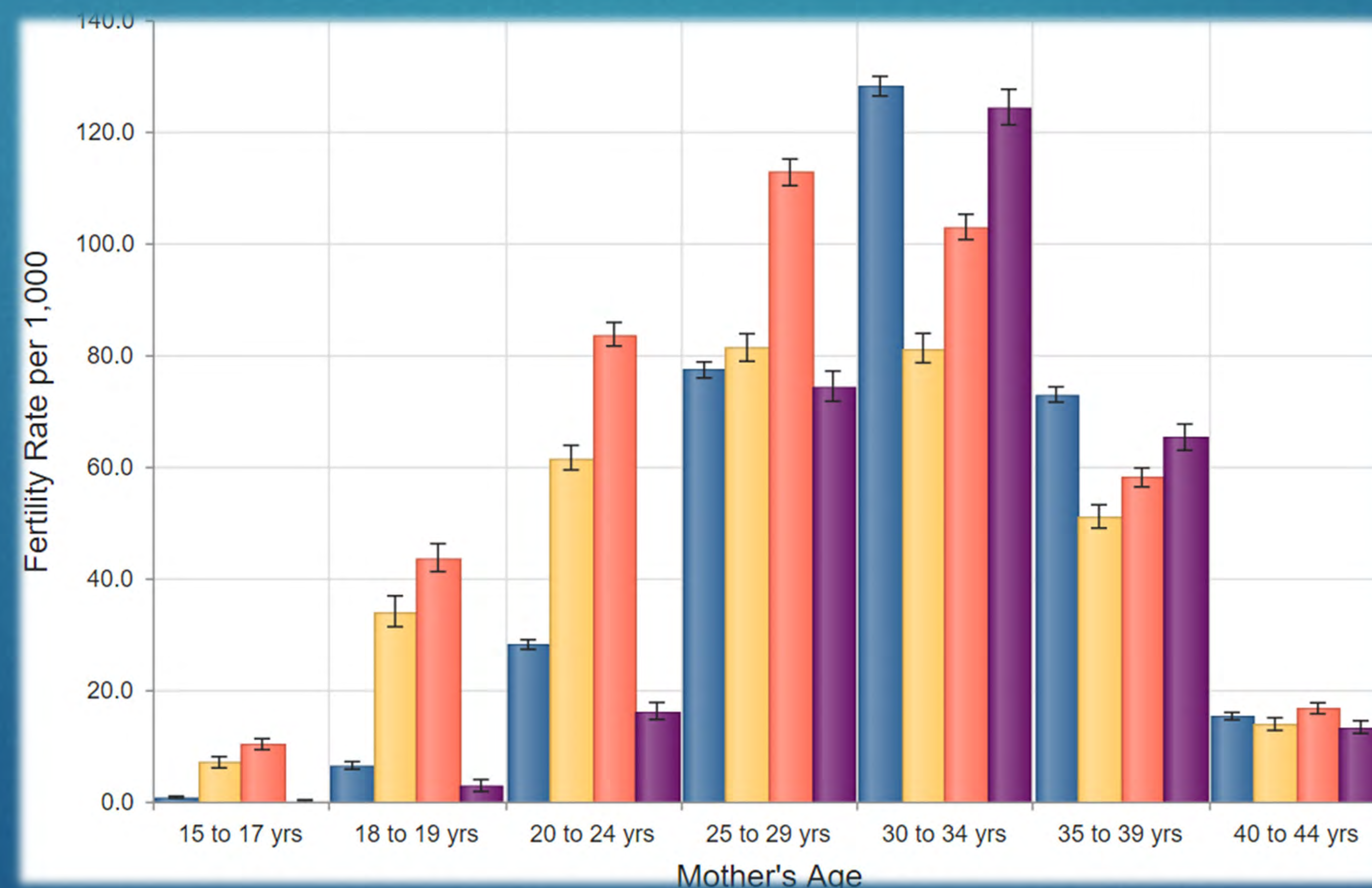
Community of Practice

11 State Health Departments
2 Tribal Epi Centers

Sample Community Profile

Public Health Indicator	Community Data			Comparison Values	
	Value	Confidence Interval*	Compared to NJ	New Jersey	United States
Teen Birth Rates, 2013-2017 (Number of Live Births per 1,000 Females Aged 15-17 Years) The number of resident live births to females in a specific age group per 1,000 females in the age group.	9.7	(8.9 - 10.6)	✖	5.3	9.9
First Trimester Prenatal Care, 2017 (Percentage of Live Births) Number of live births to pregnant women who received prenatal care in the first trimester as a percentage of the total number of live births.	76.6%	(75.8% - 77.5%)	✔	74.7%	75.3%
Preterm Births, 2017 (Percentage of Live Births) Percent of live born infants born before 37 weeks (preterm) or before 32 weeks (very preterm) of gestation based on obstetric estimate Preterm is synonymous with premature. Infants born before 37 weeks of pregnancy are considered preterm and those born before 32 weeks of pregnancy are considered very preterm. Infants born at or after 37 weeks of pregnancy are called full term. Most pregnancies last around 40 weeks.	9.5%	(8.9% - 10.1%)	=	9.5%	10.0%

Sample Graphs and Map

All Other Causes: 25.8 %
Heart Disease: 25.4 %
Cancer: 22.4 %
Influenza and Pneumonia: 1.6 %
Kidney Disease: 2.1 %
Septicemia: 2.6 %
Diabetes: 2.7 %
Alzheimer's Disease: 3.3 %
CLRD: 4.2 %
Stroke: 4.6 %
Unintentional Injury: 5.2 %

IBIS is highly customizable.

Each system adopter decides on
- datasets,
- content,
- colors,
- icons,
- etc.

Fertility Rate per 1,000 — Mother's Age (15 to 17 yrs, 18 to 19 yrs, 20 to 24 yrs, 25 to 29 yrs, 30 to 34 yrs, 35 to 39 yrs, 40 to 44 yrs)

What makes this project successful?

Low Cost

- Commercial products can be costly:
  - Initial installation $$$
  - Customization
  - Data updates $$$
  - Maintenance fees
- IBIS-PH:
  - SAS Server license: ~$7000 annually
  - Support contract:
    - You decide, but $35K annually is recommended
  - Software itself: open source = **FREE!**

Lots of Support

- Multi-jurisdiction Community of Practice
  - Monthly conference calls
  - Share resources ($)
  - Share knowledge
  - Share computer code
  - Decide on enhancements and improvements together
- STG Consulting (the software developer)
  - For when you can't do it yourself

Buy-in Within Your Department of Health (DOH)

- Partner with other programs in your DOH to display data
  - Vital events
  - EPHT
  - BRFSS
  - PRAMS
  - Cancer registry
  - Communicable disease
  - Immunization
  - Hospital discharge
- Saves your DOH money by not having multiple systems
- Creates "one-stop shopping" for public health data users

Marketing

- When you post something new:
  - Share it on Twitter, Facebook, etc.
  - Self-subscribe e-mail distribution list
  - DOH newsletters
    - e.g., monthly e-newsletters to local health departments
- Do demonstrations
  - In-person
  - Webinars
  - Record webinars and post them on the website
- Get on your DOH's home page!