Prototype for Mining Anonymized Global Medical Data
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OpenMRS: Global Data
- OpenMRS is an open-source EMR system primarily used in developing countries
- There are instances in over 23 countries including all 400 facilities in Nigeria
- OpenMRS represents an abundance of data

Mining Regional Data
- Queries can be parameterized by disease
- Data aggregation occurs by querying multiple databases
- Users can visualize disease burden for an entire region
- This data can influence government policy

Future Development
- Prototype demonstrates the feasibility of aggregating OpenMRS data
- Patient privacy is critically important
- Additional queries must balance privacy and functionality

Mining Medical Data
- Our module allows users to:
  - Parameterize queries including output format
  - Visualize medical trends in a country or region
  - See how new procedures affect disease rates
  - Gather data to inform government policy

Mining Trends Over Time
- Queries can be parameterized by time
- Users can visualize the change in disease burden over time
- This data can help officials understand trends in data such as the spread of a disease

Collaboration
- This prototype was a result of a partnership between Moravian College and Merck
- The hands-on experience gave real-world experience to students
- The collaboration will continue to engage students and provide internship and career opportunities