STIs and LVHN: Using Billing Data as a Proof-of-Concept Tool to Inform a New LVHN STI Clinic in Decision Making.

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We queried de-identified billing records from the LVHN clinical database based on ICD9/10 codes for STIs between Fiscal Year 2011-2016. Additional patient information included race, age, gender, geographic location, and facility type. Queries were completed by individual patient and by individual encounter.

We combined patient address with available US Census data that describes the demographics of the neighborhood the patient reports. Pivot tables in Microsoft Excel were used for numerical analysis and ArcGIS for geographic visualization.

Population health is essential for a clinical health system to respond to disease threats. Systematic tools are needed to assess a population for physician managers to understand baselines and changes. Sexually transmitted infections (STIs) represent a model disease for the use of a population health tool.

LVHN is creating a new STI clinic at the 17th St. hospital. We explore the use of billing data to create a public health dashboard for physician managers to understand the impact of STIs on patients of LVHN.

**Drawbacks:**
Billing data is a proxy for disease. Reflects changes in 1) disease, 2) population, 3) LVHN and 4) US policy.

**Next Steps:**
Validate the STI billing data demographic patterns against non-STI patterns.
Expand the clinical questions.
Compare findings from billing data to databases at other system levels.
Investigate other disease categories and develop other dashboards.

**Dashboard is useful for displaying high level information about STIs at LVHN.**
Dashboard can be created without IRB approval, dedicated software, and in a short time frame.

Basic Demographics, gender ratios, facility presentation should be key metrics in an STI dashboard.
Billing dashboard is best used in conjunction with surveys, chart review, and regional disease data from the health department.

**REFERENCES:**

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