

NUNA

The power of Medicine and data

Gui Woolston | May, 2016



Disclaimer and context

Disclaimer

- I work at Nuna Health, a SF-based health analytics startup that is a contractor
- I do not speak on behalf of CMS

Context

- “Claims...often lag behind events and are essentially financial records of clinical events”
- My presentation will focus (mostly) on a detailed claims database for Medicaid: foundation for non-claims based analysis

Why Medicaid matters

In 2014, Medicaid covered ~80m low-income Americans

Medicaid is big:

- Largest insurer in USA (by beneficiaries)
- ~ 2.8% of GDP
- ~ 50% of all births
- ~ 50% of total expenditures on long-term care
- ~ 16% of total healthcare spending

Federal-state program. Feds pay 50-73% of medical costs

Policy makers, providers, and payers have important questions to ask

Policy makers

- Medicaid data for national learning: how does FFS → Managed care impact outcomes?

Providers

- Where do the under-served Medicaid beneficiaries live?

Payers

- Which providers provide high value, accessible care

Medicaid data has traditionally had some challenges...but a new effort, T-MSIS, is helping

Challenge

- 1 Data timeliness
- 2 Data quality
- 3 Limited state resources



How T-MSIS will help

Auto process files
Monthly file submission

Operations dashboard
Rules engine
Consistent data dictionary

Extra money given to states
CMS has stronger “sticks”

What is in the T-MSIS data – some selected fields

Segment	Sample fields
Eligibility	Name, address, income, SSN, age immigration status, race, household structure, disability, Supplemental Security Income
Provider	Name, NPI, location, bed count
Inpatient	Diagnosis, admission date, payment
Outpatient	Procedure, copayments?
Managed care plan	Name, type, for profit?

Data follows beneficiaries, providers, and managed care plans....
...across time and space

Case study:

Spatial mismatch between beneficiaries and providers

What

Identify where there is a spatial mis-match between beneficiaries (with a given condition) and providers accepting new patients

How

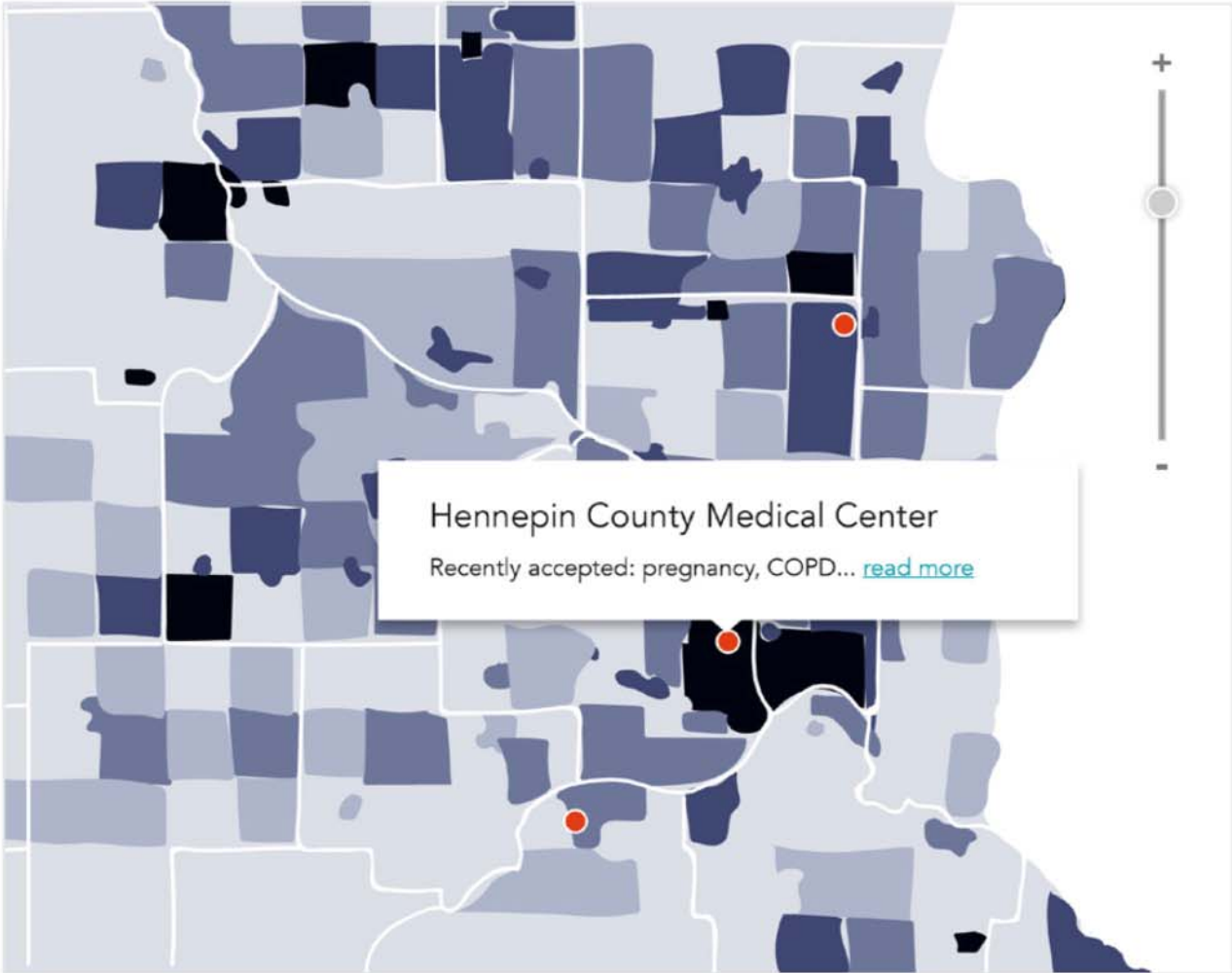
Geo-code beneficiary and provider addresses

Why

Helps inform where there is the greatest mismatch between a plan's network and patient need

Sample output

Utilizer Density by Zip Code & Providers Accepting New Medicaid patients



Search (state or zip code)

Legend

Percent of Population Utilizing Medicaid

- 0-2.7%
- 2.8-5.4%
- 5.5-8.8%
- 8.9-14.1%
- 14.2-100%

● Providers that have accepted new Medicaid patients in the past: **3 months** ▾

Other work at Nuna, beyond Medicaid

Nuna also works with self-insured employers. Here are some of their questions

- Do employees who (i) appear to have diabetes based bio screenings but (ii) do not have diabetes-related claims have higher health costs? What demographic traits predicts being in this group?
- When a child falls ill, how does this event impact productivity? Does more generous insurance cushion this impact?