

Being Data Savvy



Sources of Open Public Health Data

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Savvy?

n/adj: shrewdness and practical knowledge, especially in politics or business

verb: to know or understand



Overview

- Health indicators in BNIA data
- Other open sources of public health data
- Local, state, and federal examples
- Health Department updates



BNIA Indicators

Health Department provides:

- Life expectancy at birth
- Infant mortality
- Mortality by age groups
- Fast food density, food deserts/Hopkins

State Health Department/DHMH:

- Teen pregnancy rate
- Percent of births delivered at term
- Satisfactory birth weight
- Mother received prenatal care

Maryland Dept of Environ: Lead poisoning



Other Open Sources of Public Health Data

- City/Local
 - Neighborhood Health Profiles (PDFs)
 - <http://health.baltimorecity.gov/neighborhoods/neighborhood-health-profile-reports>
 - Open Baltimore:
<https://data.baltimorecity.gov/>
 - Locations of health facilities, grocery stores,...
 - Environmental Control Board (ECB) Violations
 - (Restaurant Inspections-Coming soon)
 - Health related-data
 - 311 Calls (911 calls in future)
 - Liquor licenses
 - Crime and arrests



Other Open Sources of Public Health Data

- State
 - DHMH Map page:
 - <http://dhmh.maryland.gov/maps/SitePages/Home.aspx>
 - “Open Maryland”
 - <https://data.maryland.gov/>
 - Also has city datasets
- Federal-Healthcare
 - Data.gov: <http://www.data.gov/> or www.healthdata.gov
 - Inpatient and outpatient charges to Medicare
 - Prescription information
 - Industry payments to doctors and hospitals
 - Census/ACS- e.g. health insurance estimates



BNIA data used in the grant application for the National Forum on Youth Violence Prevention, Summer 2014

Table 1.: Examples of High Crime CSAs

Crime Indicators (Population-based rates)	Upton/ Druid Heights	Sandtown- Winchester/ Harlem Park	Southwest Baltimore
Part I Crime	1	2	2
Violent Crime	1	1	1
Property Crime	2	3	2
Juvenile Arrests	1	1	1
Juvenile Arrests – Violent Offenses	1	1	2
Juvenile Arrests for Drug- Related Offenses	1	1	1
Domestic Violence Calls for Service	3	2	1
Narcotics Calls	1	1	1
Non-Fatal Shooting Calls	2	1	2
Gun Homicide	1	2	2

Savvy Tip #1
Open data is
valuable!

Ranked BNIA crime indicators (1 highest to 5 lowest)



Search, search, search

- Facilities **and** doctors prescribing buprenorphine/naloxone for opioid overdoses

94	☰	Baltimore Behavioral Health, Inc.	1101 W Pratt St	Baltimore City
95	☰	Baltimore Crisis Response, Inc.	2041 E Fayette Street	Baltimore City
96	☰	Center For Addiction Medicine (CAM)	827 Linden Ave	Baltimore City
97	☰	Glass Health Substance Abuse Programs, Dayt	2490 Giles Road	Baltimore City
98	☰	Deaf Addiction Services at Maryland	1001 W Pratt Street	Baltimore City
99	☰	Echo House Multi-Service Center, Inc.	1705 W Fayette Street	Baltimore City
100	☰	Gaudenzia, Inc.	4615 Park Heights Avenue	Baltimore City

Savvy Tip #2

Don't get discouraged, open data can be hard to locate!



Average Inpatient Provider Charges to Medicare, FY2013

Diagnosis	Johns Hopkins Hospital	University of Maryland Medical Center	Difference
Psychoses (885)	\$34,232	\$19,293	+\$14,939 (1.7x)
Digestive Disorders (392)	\$12,618	\$9,041	+\$3,577
Heart Failure and Shock w/CC (292)	\$17,050	\$15,993	+\$1,057

Why is there a difference?

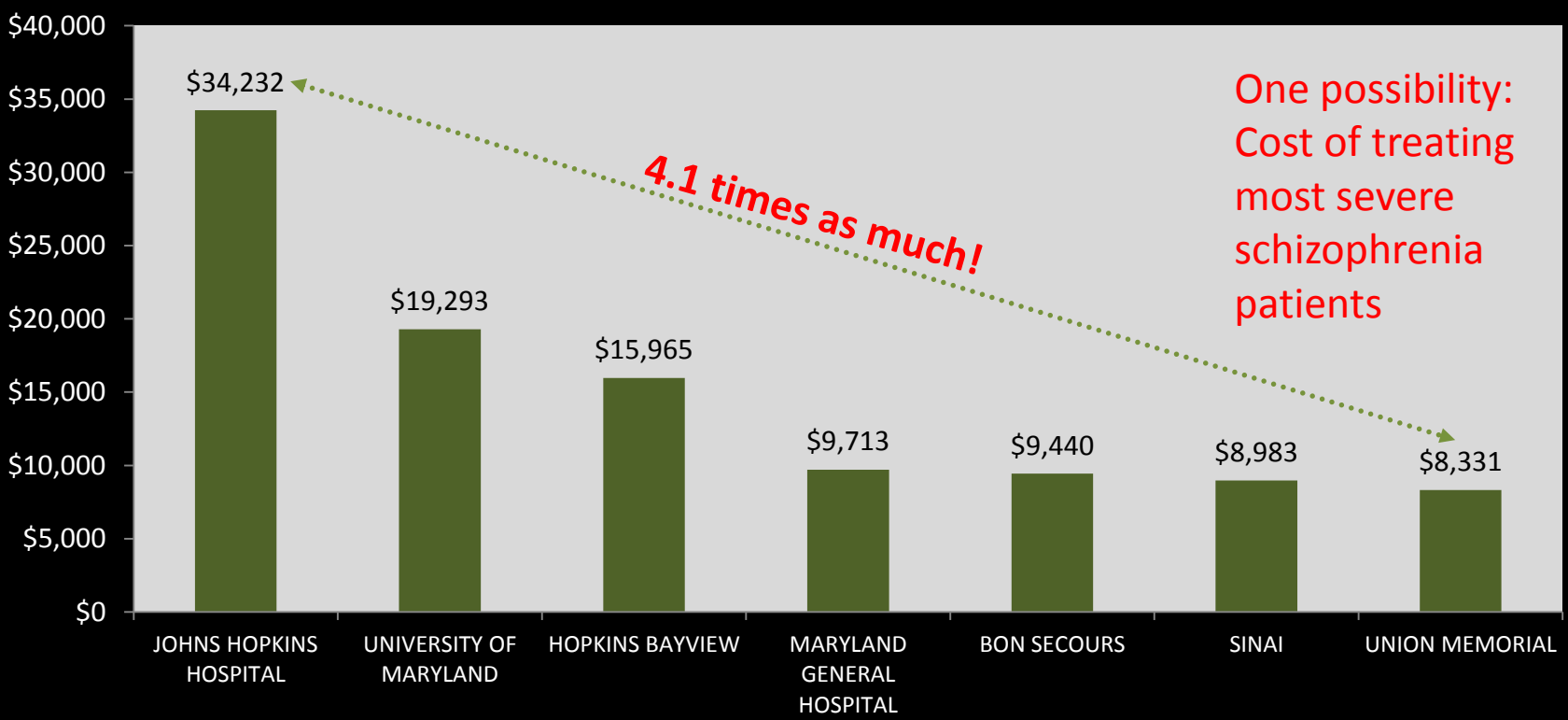
- Patients? Number of tests? Better outcomes? Data error?
- Does size of the difference depend on diagnosis?

Savvy Tip #3

Comparisons are powerful tools!



By Hospital for Psychoses, FY 2013



Savvy Tip #4: Use simple tables and colorful graphs

Note: All hospitals listed have more than 200 discharges for this diagnosis. Maryland General is now UMMC Midtown.



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Health Department Updates

Small steps

- Increasing access and transparency
 - Shootings in Safe Streets posts:

Shooting Incidents by post in 2015 (as of June 20th*)

Site	Corresponding Police Post	Jan	Feb	Mar	Apr	May	Jun
Cherry Hill	924	0	0	0	0	1	0
McElderry Park	221	0	1	0	1	2	0
Mondawmin	736	1	1	1	0	0	3
Park Heights	612	0	0	1	0	0	0

Date of Last Firearm Homicide

Site	Date	Address	Number of days without a firearm homicide (as of June 20th)
Cherry Hill	4/22/2014	600 Roundview Road	1 year+/424 days
McElderry Park	9/22/2014	400 N Montford Avenue	271 days
Mondawmin	6/12/2015	2200 N Fulton Avenue	8 days
Park Heights	6/3/2014	3700 Reisterstown Road	1year+/382 days



Health Department Updates

BIG Steps

- Online map gallery
- Making more health data publically available on Open Baltimore and with BNIA
- Never personally identifiable



Data, Savvy!



- Start early
- Be **BOLD!**
- Open data is valuable
- Search, search, search!
- Find a comparison group/area
- Use simple tables and colorful graphs
- Work in teams
- Don't be afraid to start over



Free Data Tools



- Google Sheets and Open Office
 - Excel replacement, easy to use



- Plotly
 - Harder to use, fancier graphics
 - <https://plot.ly>



- "R" Project
 - Intermediate/advanced data user
 - <http://www.r-project.org>



- QGIS
 - Free software for making maps!
 - <http://www.qgis.org>



Thanks!

- Questions?
- What health topics are important to you?
- Ideas for online maps?

