

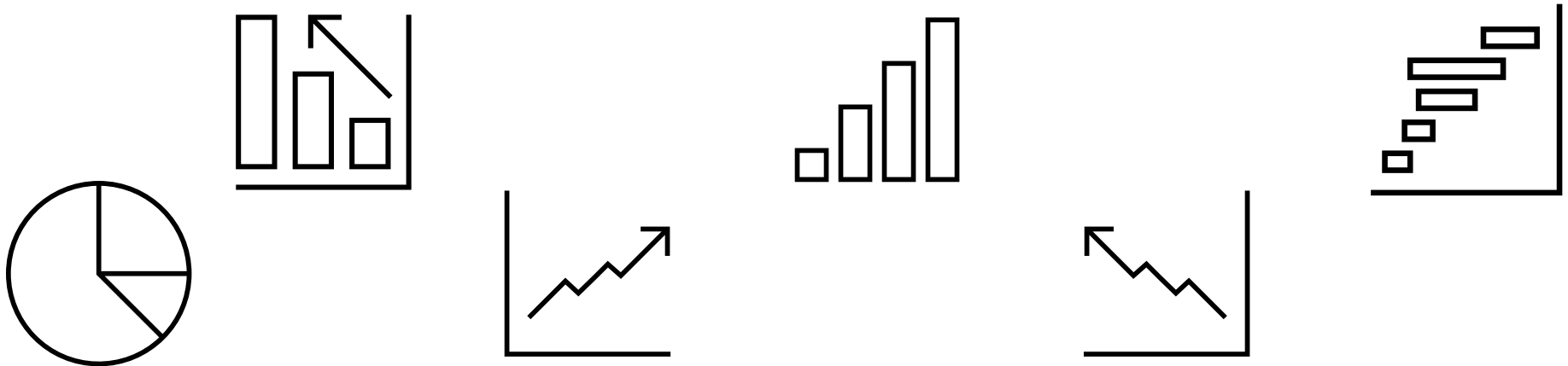
Interpreting Health Care Data

John Richardson
Sr. Director, IPOP & Data Analytics
Iowa Hospital Association

Vanessa Calderon
Sr. Director, Data Analytics and Visualization
Iowa Hospital Association

Objectives

- Demonstrate tools that aid in the decision-making process
- Outline how health care data can inform decision-making for health care institutions and public health



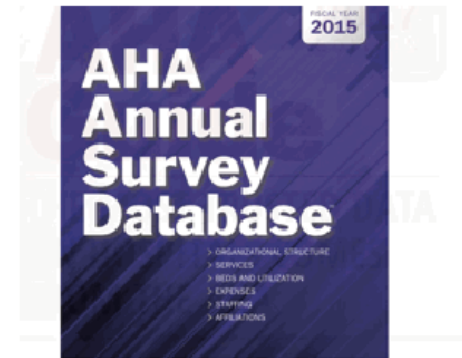
Iowa Hospital Association State Partnerships

- South Dakota
- Oregon
- Mississippi
- Colorado
- Hawaii
- Idaho
- Indiana
- Louisiana
- Michigan
- Nebraska
- Vermont
- Dallas Fort Worth
- Wisconsin
- Kentucky
- Washington



Data Sources

- Statewide Discharge Data
- CMS Hospital Compare
- American Community Surveys
- Databank
- AHA Annual Survey
- Adjoining States Data
- County Health Rankings
- Physician Data
- Ambulatory Surgery Data

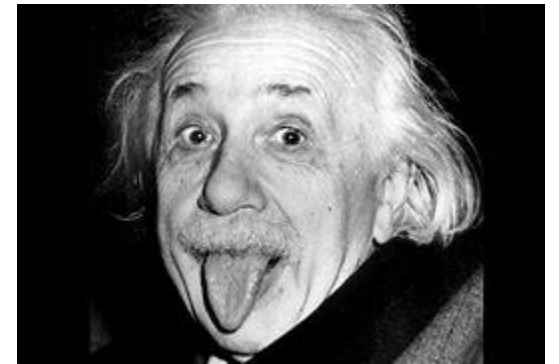


So much data...

How do we make it useful?

"If I had an hour to solve a problem and my life depended on the solution, I would spend the first 55 minutes determining the proper question to ask, for once I know the proper question, I could solve the problem in less than five minutes."

- Albert Einstein



Hospital Uses



Analyze Market Share

Where are my patients coming from?

Where are people in my market area going for healthcare?

Gaining or losing market share?



Perform Patient Services Assessment

Are patients travelling to another hospital for services my hospital doesn't offer?

Which hospital(s)?



Plan Hospital Services

Adding a new service? Does it make sense, is there enough volume?



Recruit and Analyze Physicians

Who are high performers/low performers at my facility?

Vanessa



Benchmark with Peers

How do I compare with my competitors?

Vanessa

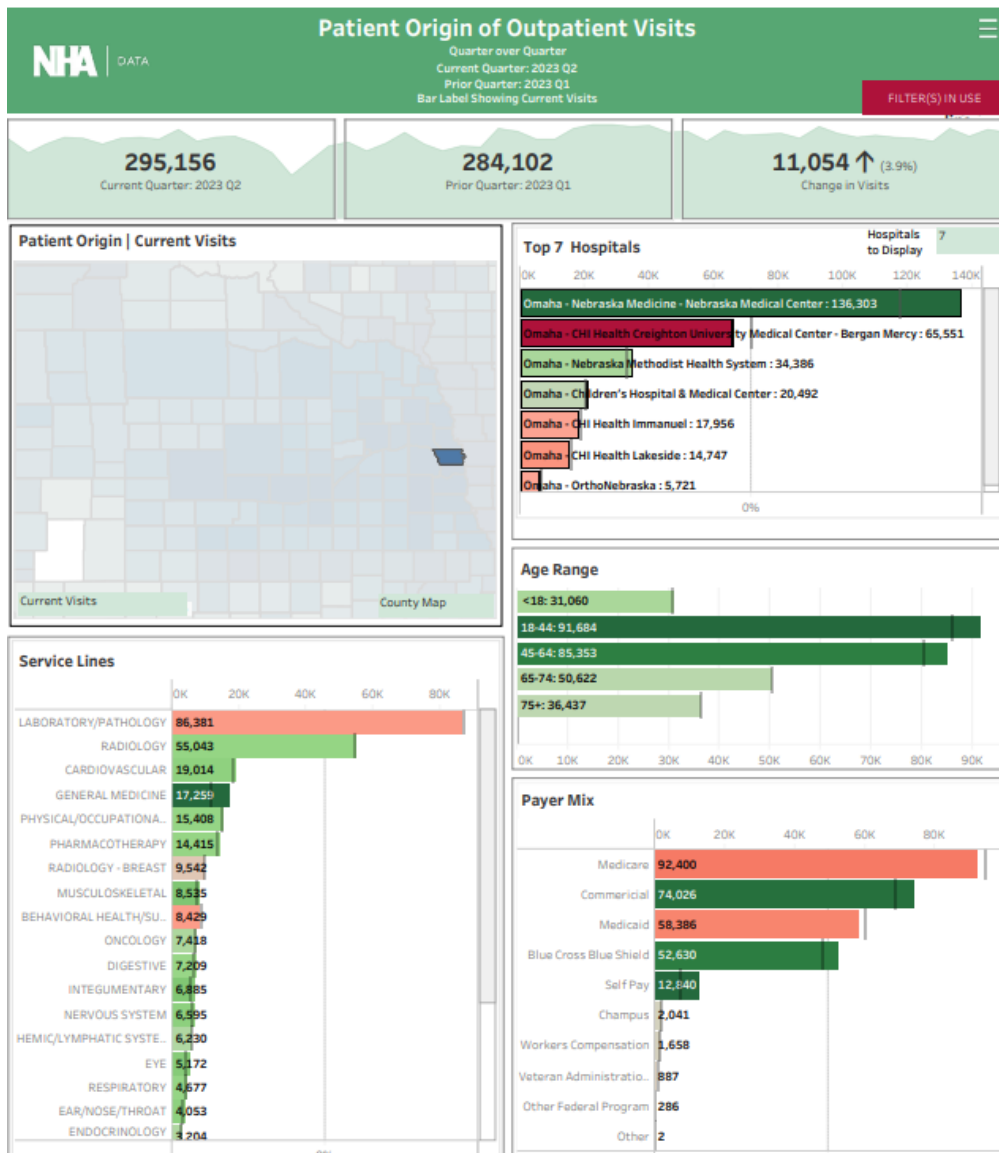


Assess Community Needs

Is my hospital meeting my communities needs?

Is there an area we can improve?

Vanessa



	2023 CY		
	2023 Q1 CY	2023 Q2 CY	Total
Omaha - CHI Health Creighton	71,611	65,551	137,162
Omaha - CHI Health Immanuel	18,790	17,956	36,746
Omaha - CHI Health Lakeside	16,112	14,747	30,859
Omaha - Children's Hospital &	20,115	20,492	40,607
Omaha - Nebraska Medicine	117,750	136,303	254,053
Omaha - Nebraska Methodist	33,232	34,386	67,618
Omaha - OrthoNebraska	6,492	5,721	12,213
Total	284,102	295,156	579,258

	2023 CY	
	2023 Q2 CY	Total
Automobile Medical	164	164
Blue Cross/BlueShield	52,630	52,630
Champus	2,041	2,041
Commercial Insurance Co.	60,300	60,300
Health Maintenance Organization	1	1
Indemnity Insurance	5,187	5,187
Medicaid	58,386	58,386
Medicare Part A	92,400	92,400
Other Federal Program	286	286
Other Non-Federal Programs	1	1
Preferred Provider Organization (PPO)	8,375	8,375
Self-Pay	12,840	12,840
Veteran Administration Plan	887	887
Workers' Compensation Health Claim	1,658	1,658
Total	295,156	295,156

	2023 CY	
	2023 Q2 CY	Total
ANESTHESIA	262	262
BEHAVIORAL HEALTH/SUBSTANCE ABU	8,429	8,429
BREAST	1,038	1,038
BURNS/GRAFTING	229	229
CARDIOVASCULAR	19,014	19,014
COVID	3,055	3,055
DENTAL	90	90
DIGESTIVE	7,209	7,209
EAR/NOSE/THROAT	4,053	4,053
ENDOCRINOLOGY	3,204	3,204
EYE	5,172	5,172
GENERAL MEDICINE	17,259	17,259
HEMIC/LYMPHATIC SYSTEMS	6,230	6,230
INTEGUMENTARY	6,885	6,885
LABORATORY/PATHOLOGY	86,381	86,381
MALE GENITALIA	533	533
MUSCULOSKELETAL	8,535	8,535
NERVOUS SYSTEM	6,595	6,595
OBSTETRICS/GYNECOLOGY	2,818	2,818
ONCOLOGY	7,418	7,418
PHARMACOTHERAPY	14,415	14,415
PHYSICAL/OCCUPATIONAL/SPEECH RE	15,408	15,408
RADIOLOGY	55,043	55,043
RADIOLOGY - BREAST	9,542	9,542
RENAL/URINARY	1,662	1,662
RESPIRATORY	4,677	4,677
Total	295,156	295,156

Analyze Market Share

- **Patient Origin**
 - Where are my patients coming from?
- **Patient Destination**
 - Where are patients in my market area going?

Inpatient

Save Layout Load Layout Group Export Excel

Find:

Attributes

- Admitting Diagnosis
- Age Range
- Attending Physician
- Discharge Date
- Ethnicity
- Facility
- MSDRG
- Normal Newborn
- Patient Discharge Status
- Patient Location
- Payer
- Place of Service
- Point of Origin
- Present on Admission
- Primary Spoken Language
- Principal Diagnosis
- Principal Procedure
- Priority of Admission
- Procedure Physician

Measures

- Inpatient
- Inpatient Unique
- Values

Pages

Data

Discharges

Filters

Level of Detail

Encodings

Marking Auto-Text

Label Value

Color

Size

Columns Calendar Year Name

Rows Name

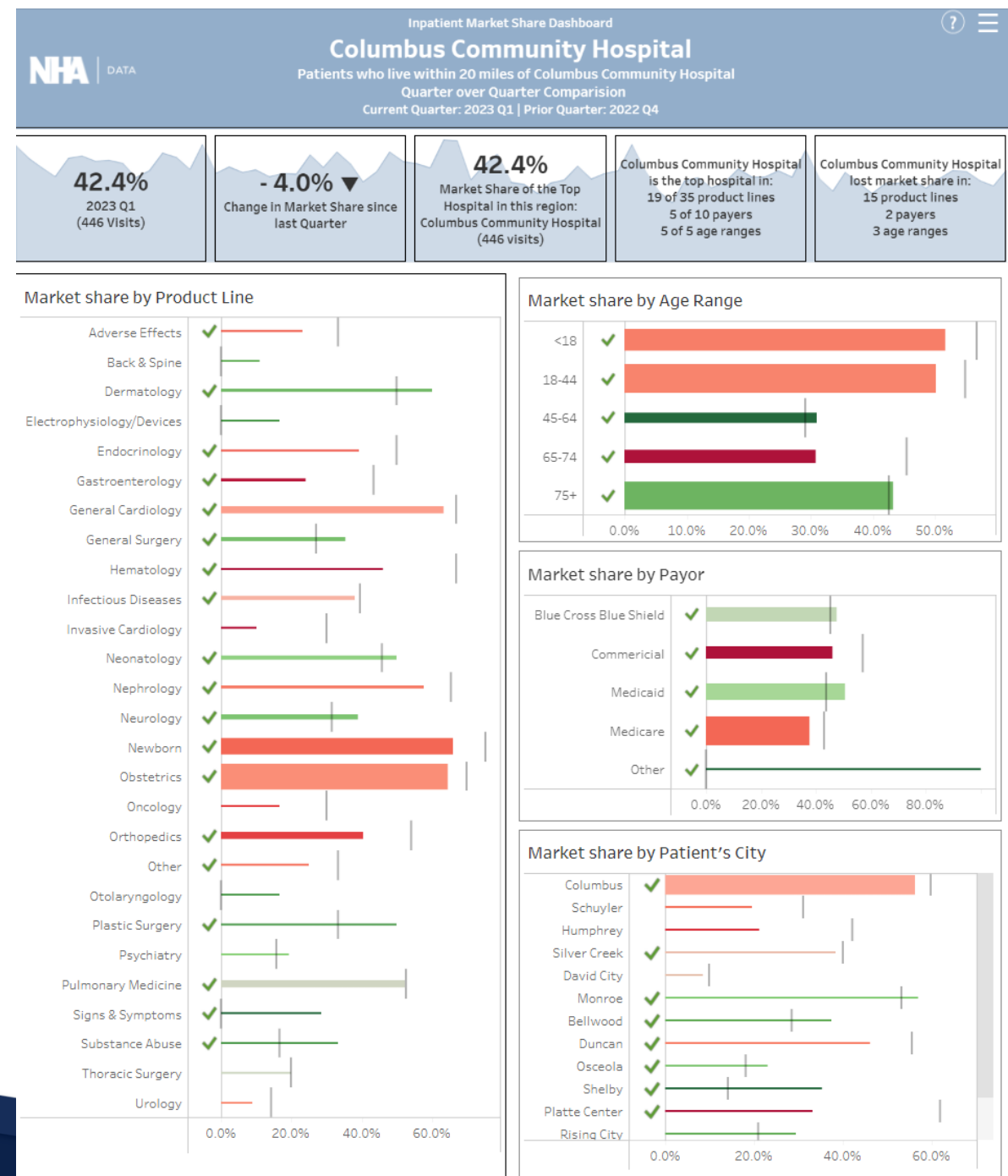
	2018 CY	2019 CY	2020 CY	2021 CY	2022 CY	2023 CY	Total
Ainsworth - Brown County Hospital	66	54	77	87	22	32	338
Albion - Boone County Health Center	888	845	716	349	701	266	3,775
Alliance - Box Butte General Hospital	881	723	559	551	697	233	3,624
Alma - Harlan County Health System	52	95	59	83	57	23	369
Atkinson - West Holt Medical Services	127	118	104	81	88	75	593
Auburn - Nemaha County Hospital	157	151	116	143	136	76	779
Aurora - Memorial Community Health	290	328	269	239	198	93	1,417
Bassett - Rock County Hospital	84	89	77	61	122	34	467
Beatrice - Beatrice Community Hospital & Medical Center	1,157	1,358	1,070	978	1,209	582	6,334
Bellevue - Nebraska Medicine - Bellevue Medical Center	5,000	5,856	3,813	3,886	3,996	2,256	24,787
Benkelman - Dundee County Hospital	143	143	148	121	167	79	801
Blair - Memorial Community Hospital & Medical Center	234	299	279	246	306	184	1,548
Bridgeport - Morrill County Community Hospital	114	177	112	100	130	37	670
Broken Bow - Jennie M. Melham Memorial Hospital	315	267	324	271	187	94	1,458
Callaway - Callaway District Hospital	137	186	128	146	187	63	847
Cambridge - Tri Valley Health System	186	179	233	227	174	87	1,086
Central City - Merrick Medical Center	205	158	122	120	205	114	924
Chadron - Chadron Community Hospital & Medical Center	513	457	469	500	339	259	2,537
Columbus - Columbus Community Hospital	2,395	2,517	2,225	2,098	2,036	1,015	12,286
Cozad - Cozad Community Health System	285	233	266	201	192	117	1,274
Creighton - Avera Creighton Hospital	184	173	146	167	151	66	887
Crete - Crete Area Medical Center	308	245	251	249	228	157	1,438
David City - Butler County Health Care Center	339	293	354	353	271	169	1,779
Fairbury - Jefferson Community Health & Medical Center	259	195	179	205	115	75	1,028
Falls City - Community Medical Center, Inc.	524	494	379	366	182	101	2,046
Franklin - Franklin County Memorial Hospital	39	38	32	27	20	18	174
Fremont - Methodist Fremont Health	3,001	3,035	2,945	2,755	3,286	1,745	16,767
Friend - Friend Community Healthcare System	53	22	15	20	14	20	144
Geneva - Fillmore County Hospital	477	535	430	406	279	147	2,274
Genoa - Genoa Medical Facilities	143	87	97	67	46	24	464
Gordon - Gordon Memorial Health Services	193	243	185	128	214	113	1,076
Gothenburg - Gothenburg Health	297	270	247	128	113	96	1,151
Grand Island - CHI Health St. Francis	6,130	5,837	4,911	4,754	4,437	2,382	28,451
Grand Island - Grand Island Regional Medical Center			174	1,582	1,729	1,182	4,667
Grant - Perkins County Health Services	457	424	380	417	326	112	2,116



IOWA HOSPITAL
ASSOCIATION

Analyze Market Share

- **Market share**
 - By Product Line
 - By Age Range
 - By Payor
 - By City



Perform Patient Services Assessment



ER Visits by month



Average ER Visits per day

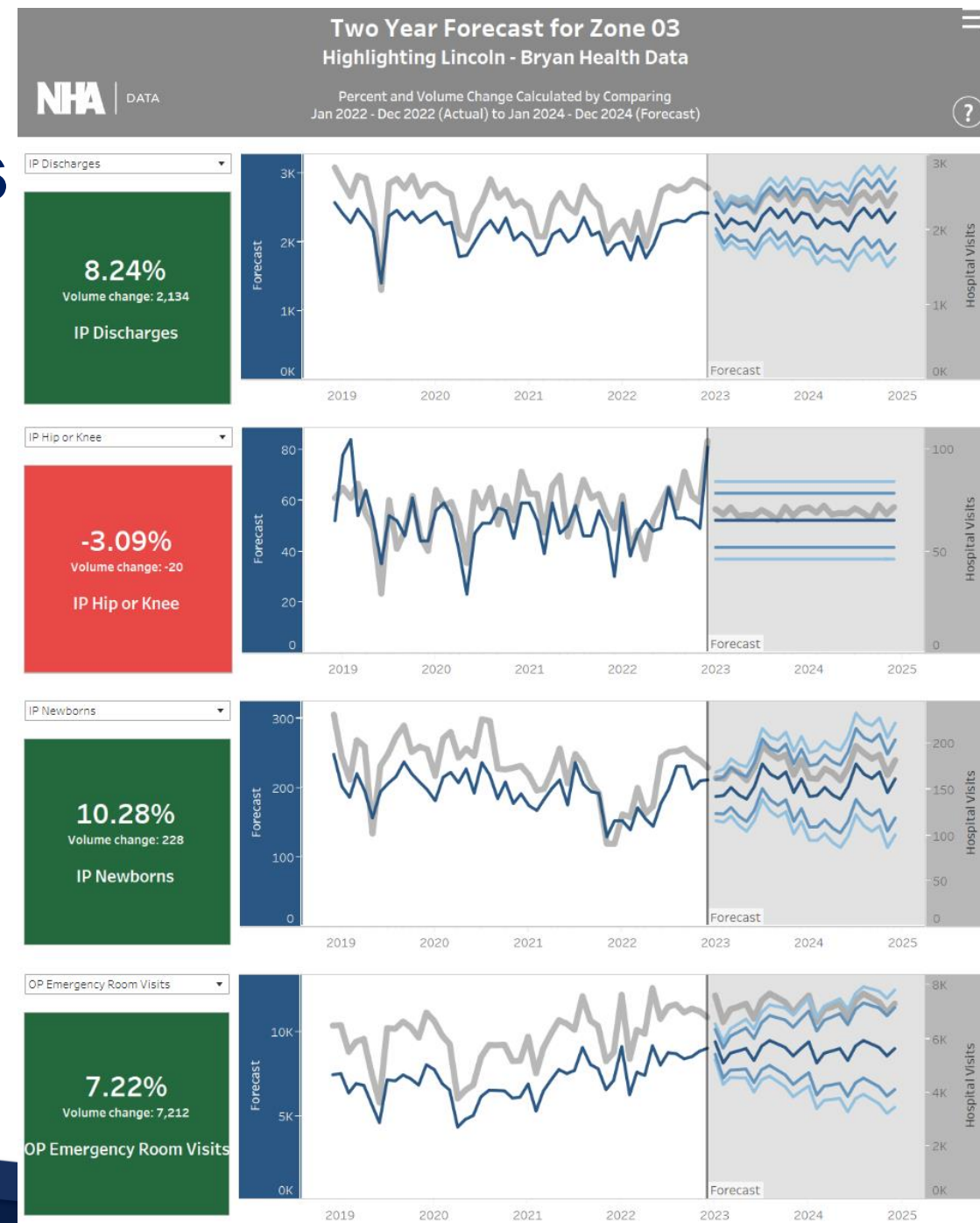
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	
January	226	247	249	247	247	242	230	241
February	214	250	234	220	220	229	220	227
March	212	236	231	231	224	229	208	225
April	214	237	228	212	214	223	212	220
May	218	238	226	225	225	225	218	225
June	202	223	225	219	213	226	208	216
July	230	251	243	236	231	238	219	235
August	241	272	262	250	251	251	239	252
September	247	268	263	253	249	257	231	252
October	225	259	246	250	243	251	227	243
November	208	237	244	232	229	240	216	230
December	225	242	243	229	235	232	226	233
	222	247	241	234	232	237	221	

Visits by Primary Service Line

Service Line	Calc	OK	50K	100K	150K
RADIOLOGY		200,095			
PHARMACOTHERAPY		76,661			
LABORATORY/PATHOLOGY		28,404			
GENERAL MEDICINE		27,106			
CARDIOVASCULAR		22,207			
INTEGUMENTARY		19,436			
BEHAVIORAL HEALTH/SUBSTANCE ABUSE		14,647			
DIGESTIVE		9,855			

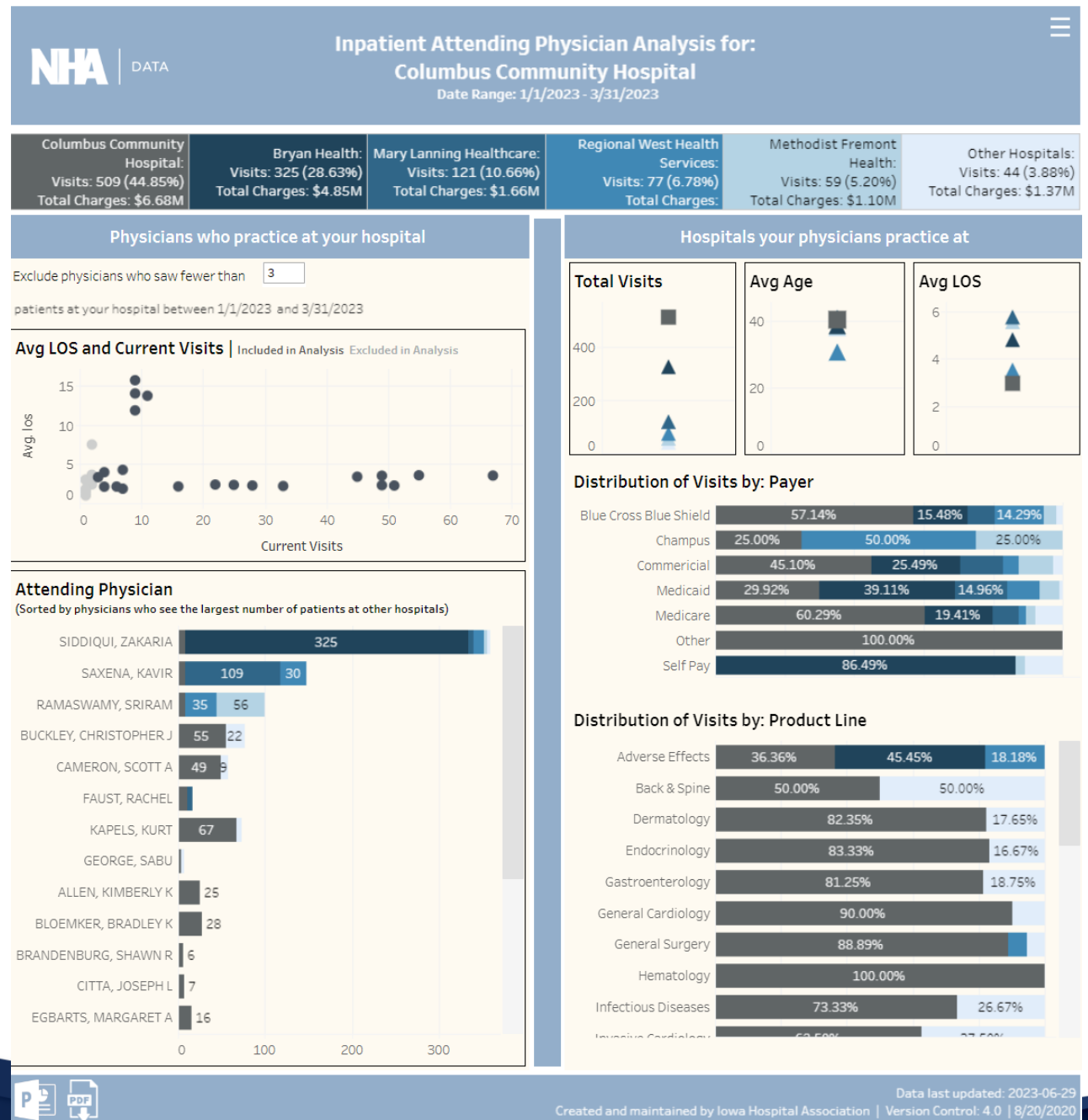
Plan Hospital Services

- Predictive Analytics allows hospitals a glimpse into the future
- What your market projects to look like in two years
- Are deliveries increasing or decreasing in your market area?



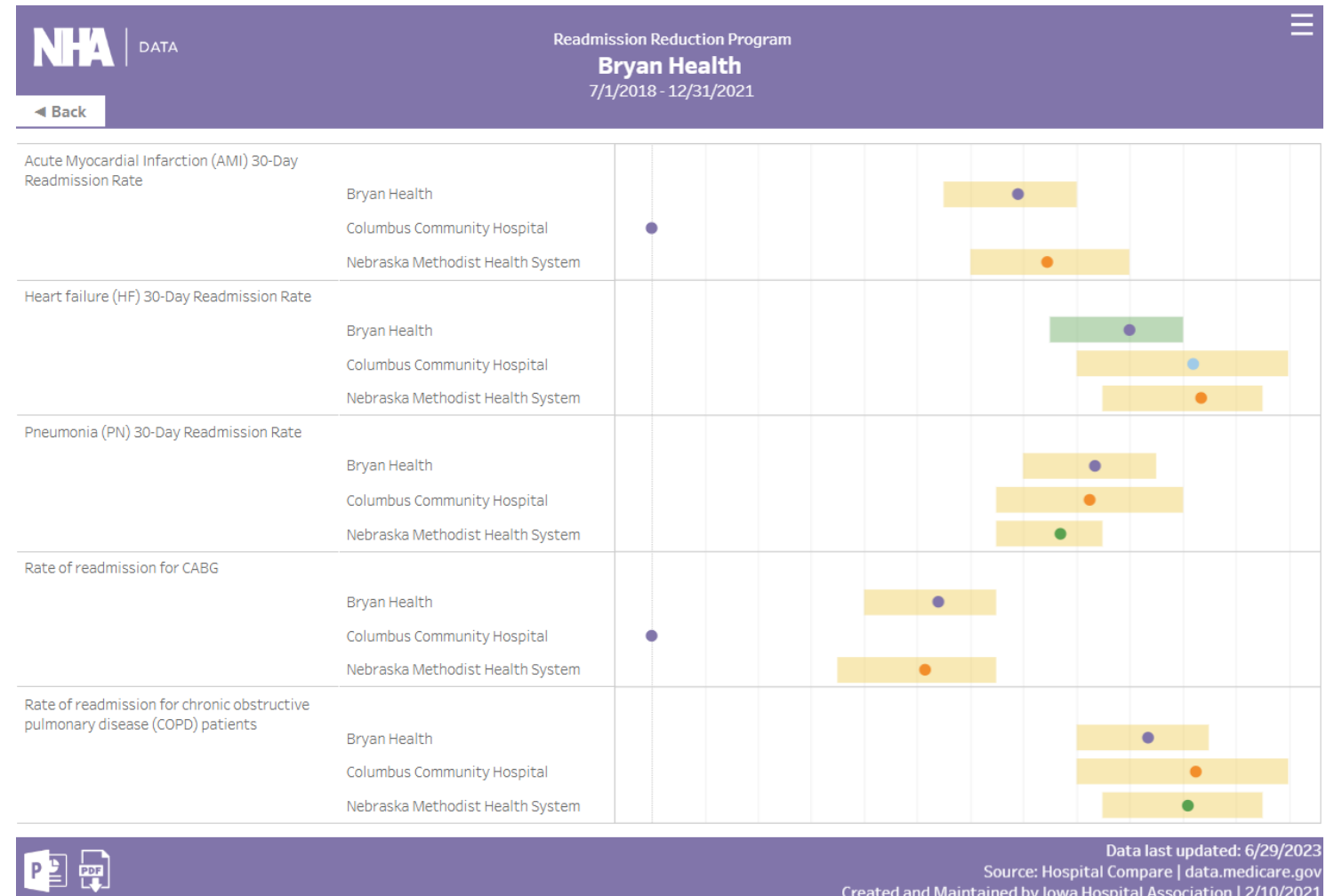
Recruit and Analyze Physicians

- Is there a high demand for a specialty that we aren't comprehensively serving?
- Are physicians who practice at our facility attending more patients / performing more procedures at other locations?



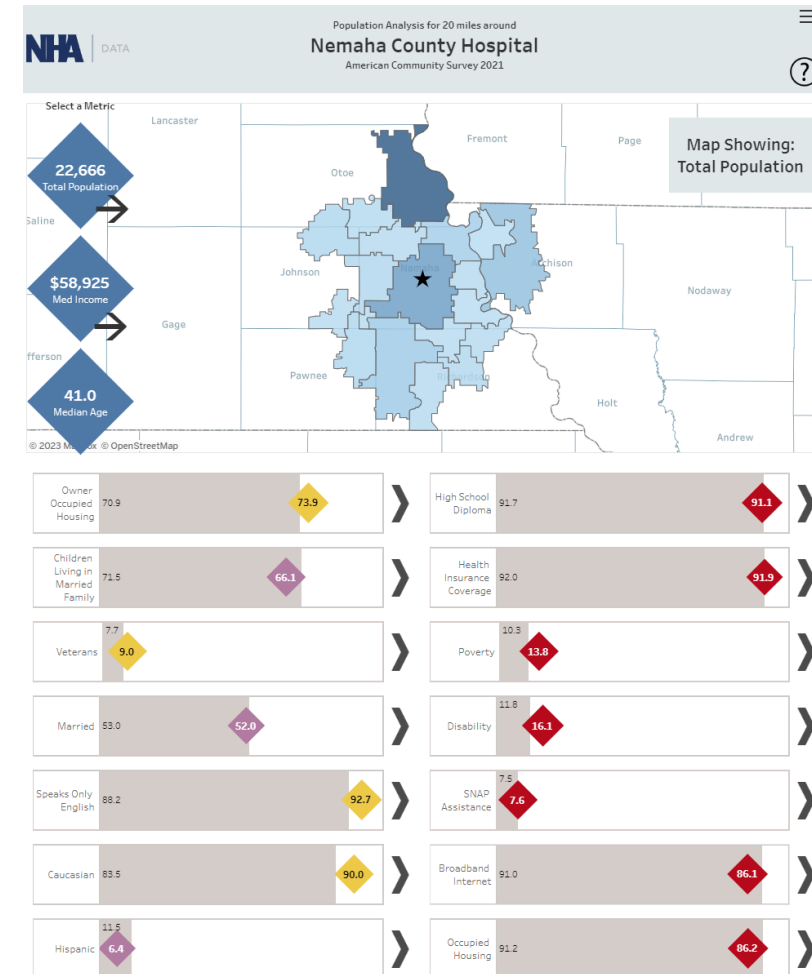
Benchmark with Peers

- Hospital Compare (Quality) Dashboard
- Compare Readmissions rates from peer groups
 - Identify top performers
 - Identify areas for improvement



Assess Community Needs

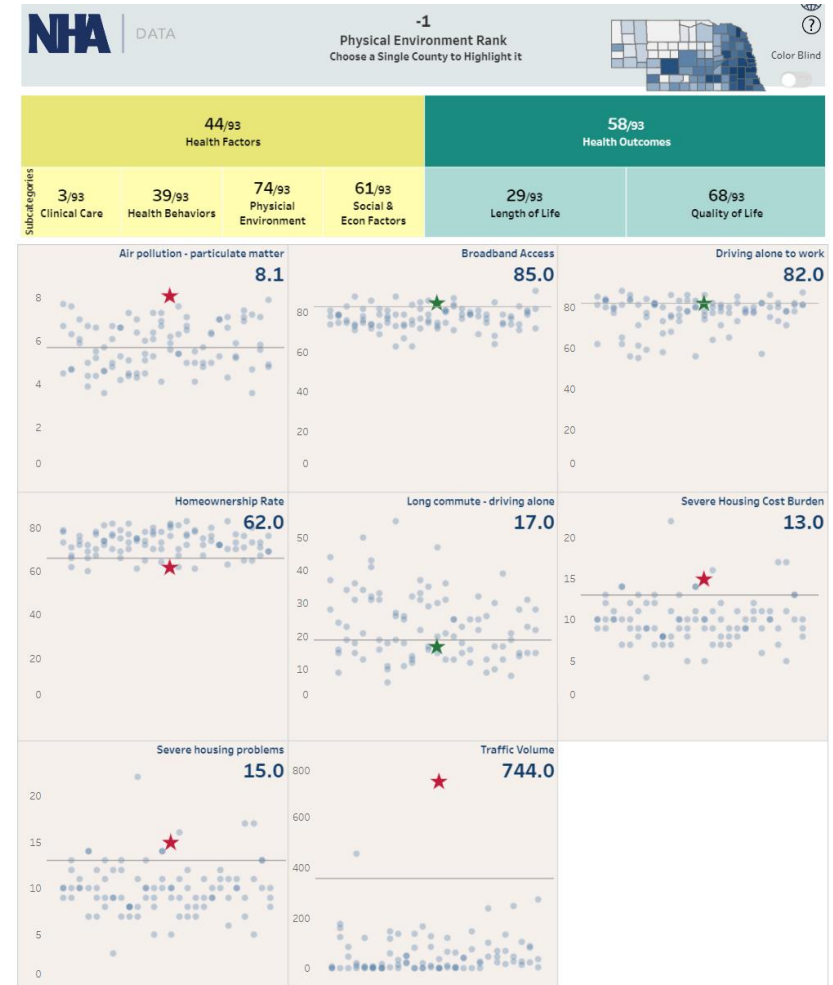
- American Community Survey
 - Census.gov Data
 - Housing status, Family structure, Language, Graduation rates, Internet Access, Income information
 - Various other demographic data points (age, race, ethnicity)
 - *What challenges may the patients in the areas around my hospital be encountering?*



Assess Community Needs

- County Health Rankings

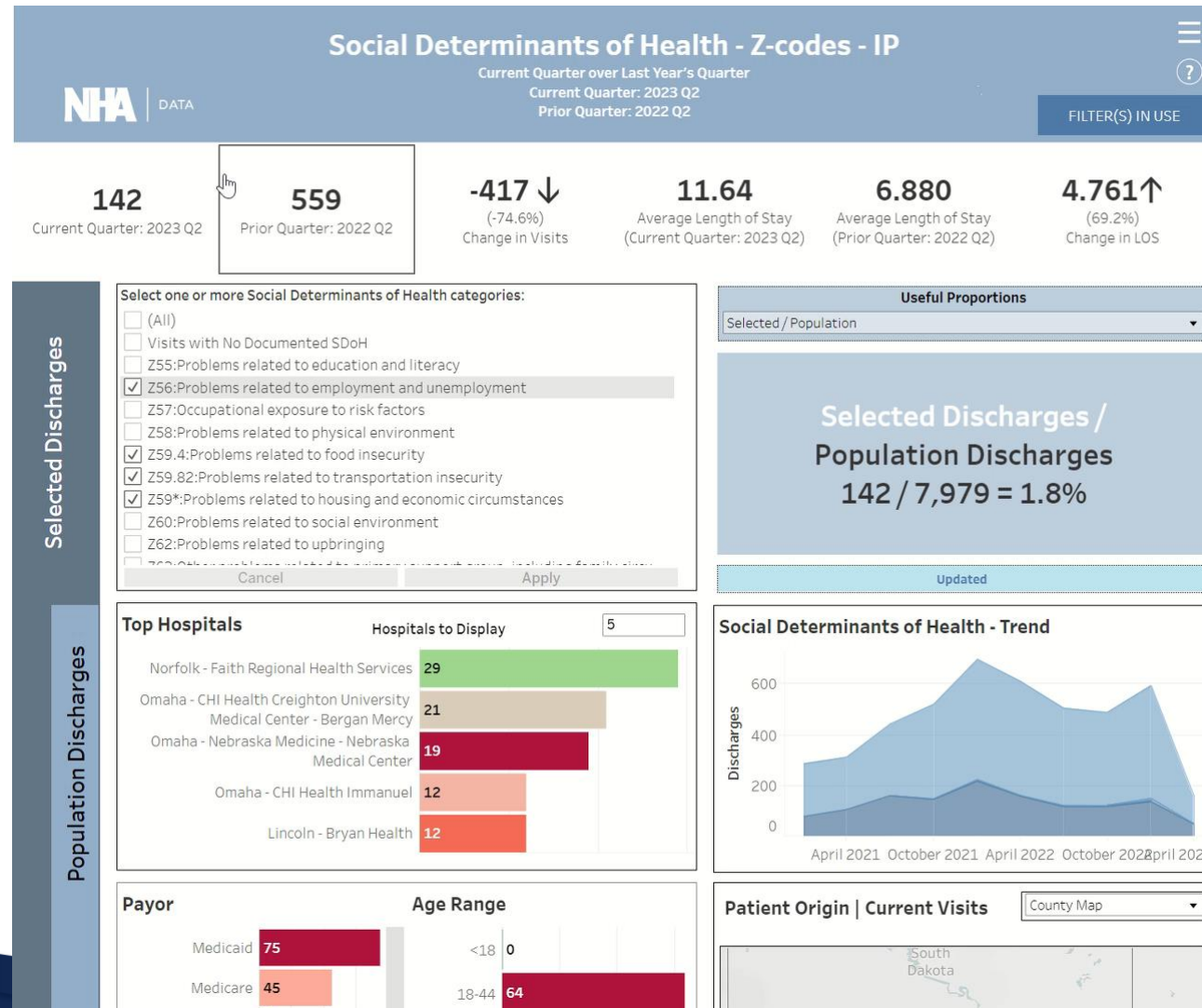
- U of W Population Health Institute / RWJF data
- How does my county compare to other counties in Nebraska on health factors (inputs)? Health Outcomes (length/quality of life)?*



Assess Community Needs

Social Determinants of Health

- Z-codes Z55-Z59 – social factors that may affect a patient's health and wellbeing
- *How well are we capturing z-codes? Trends?*
- *Which social determinants of health are prevalent around our communities?*



Questions?

- **Contact information:**
 - IHADataTeam@ihaonline.org