

DALLAS-FORT WORTH REGION HIGH ED UTILIZERS EXPLORATORY ANALYSIS USING MULTI-ORGANIZATIONAL DATA



Esmail Porsa, MD, MBA, MPH, CCHP-A; Muthusamy Anandkumar, MD, MBA; Srinivas Polineni, BS; Jacqueline Sullivan, PhD, RN

Background

- Parkland, one of the largest safety net entities in the nation, serves a broad population of highly vulnerable patients.
- Patients with complex health and social needs frequently use Emergency Departments (EDs) not only at Parkland but across multiple Dallas-Fort Worth (DFW) regional health systems as portals of care.
- Disparate information technology and lack of interoperability leads to each organization having limited understanding of the broader, regional scope of the problem.

Purpose

To conduct a multi-organizational analysis of High ED Utilization across DFW regional health systems

Project Description

Dallas-Fort Worth Hospital Council Foundation (DFWHCF) Regional Master Patient Index (REMPI) Registry data (with de-identified patient data) were analyzed to examine High ED Utilization patterns and patient characteristics across DFW regional health systems.

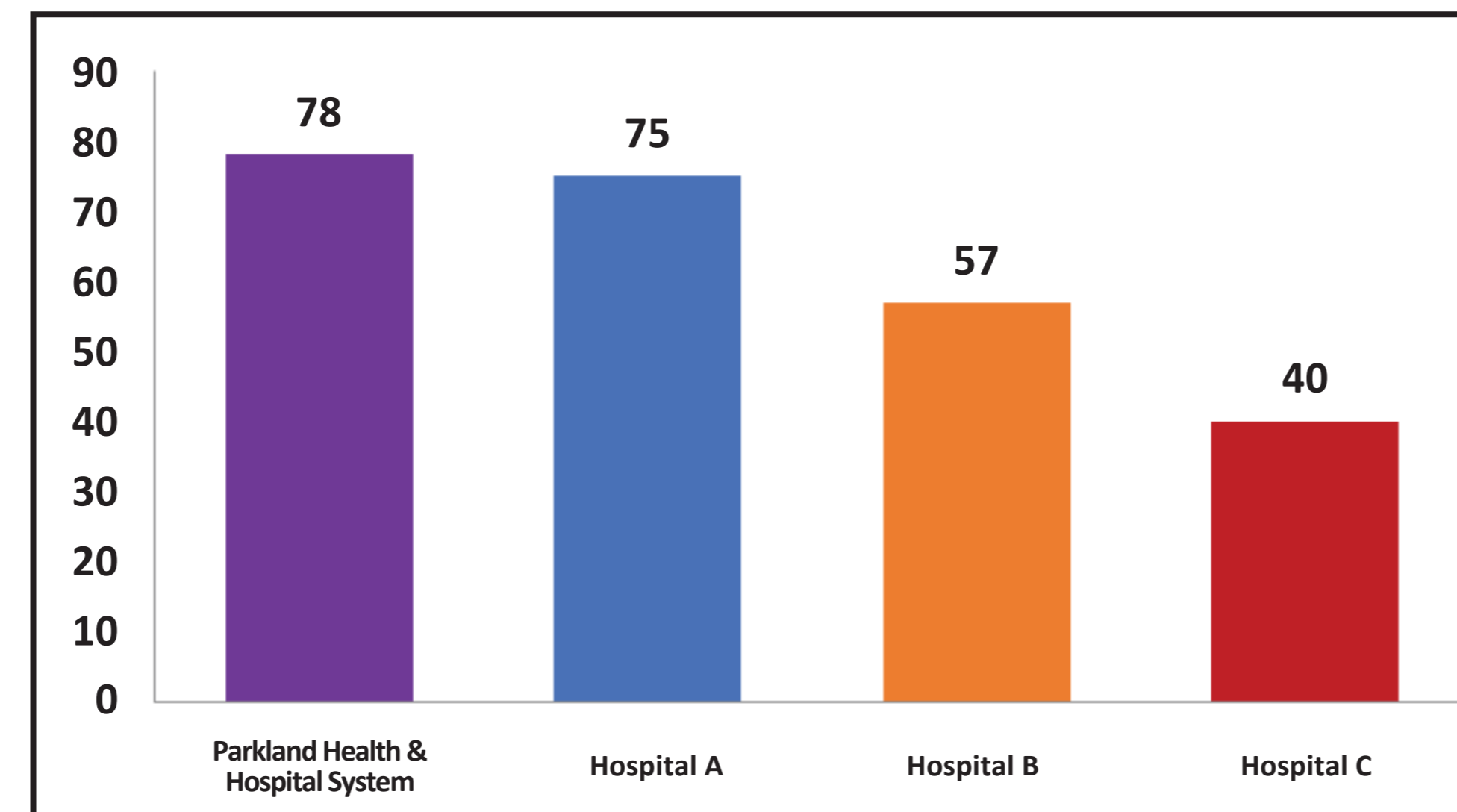
Method

- Using 12 consecutive months of data, Parkland identified its 200 Highest ED Utilizers and segmented that sample to include those having ≥ 30 ED Visits in at least four different DFWHCF hospitals (Parkland and three additional DFW area hospitals) during those 12 months: July 2016 through June 2017.
- Patients with the primary diagnosis of End Stage Renal Disease (ESRD) requiring hemodialysis were excluded from this analysis.
- Analyses within and across health systems determined: (1) number of unique High ED Utilizer patients, (2) number of ED visits and (3) top reasons for ED Visits.

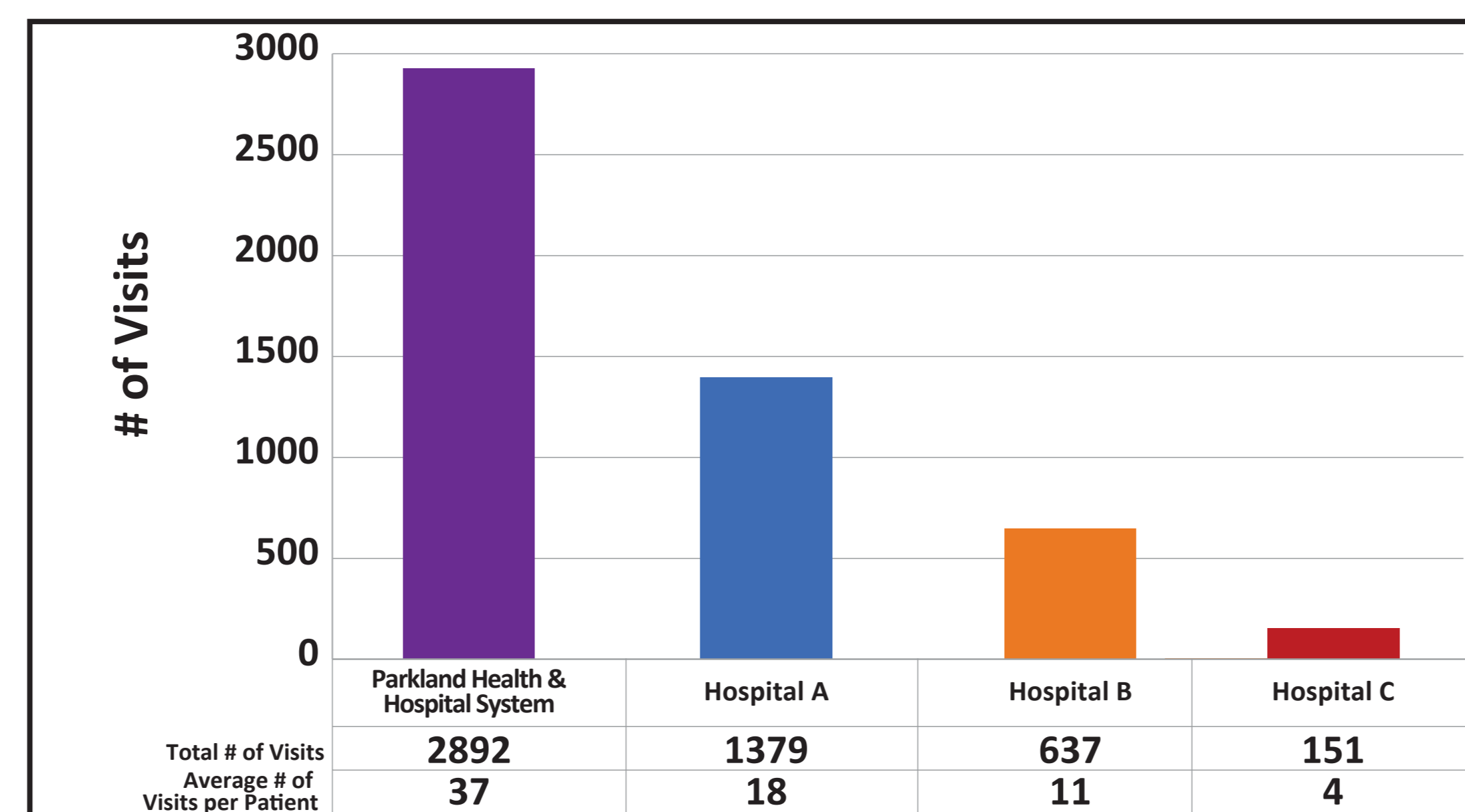
Results

- 78 unique patients were the same Top High ED Utilizers among four of the largest DFWHCF health systems during the consecutive 12 month period.
- These 78 patients accounted for a total of 5,059 ED Visits during the consecutive 12 month period across these four health systems. (Total Average Estimated Cost = \$13,795,893)

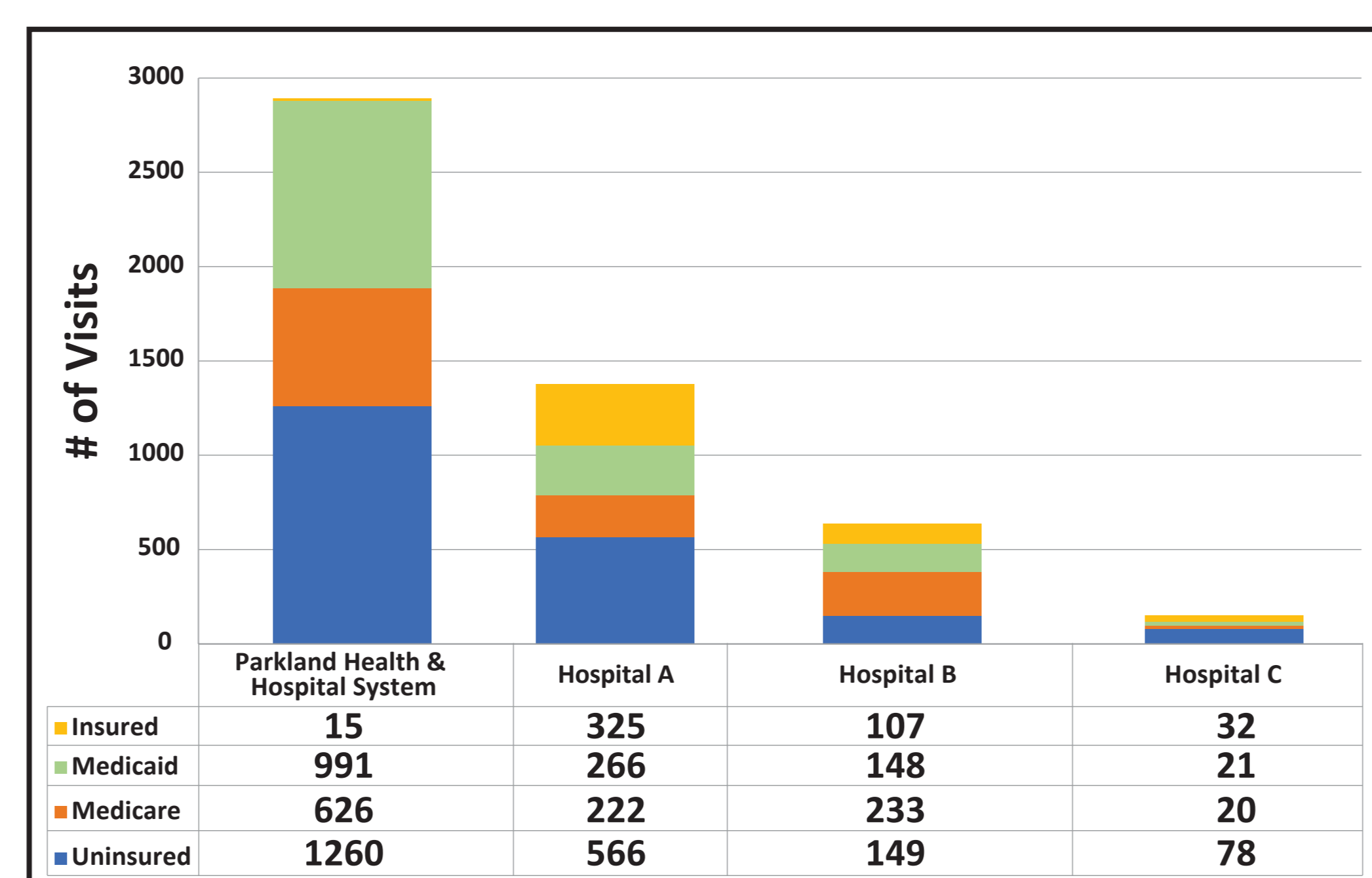
A Unique Patient Count
(Top 78 High ED Utilizers)



B Number of Visits
(Top 78 High ED Utilizers)



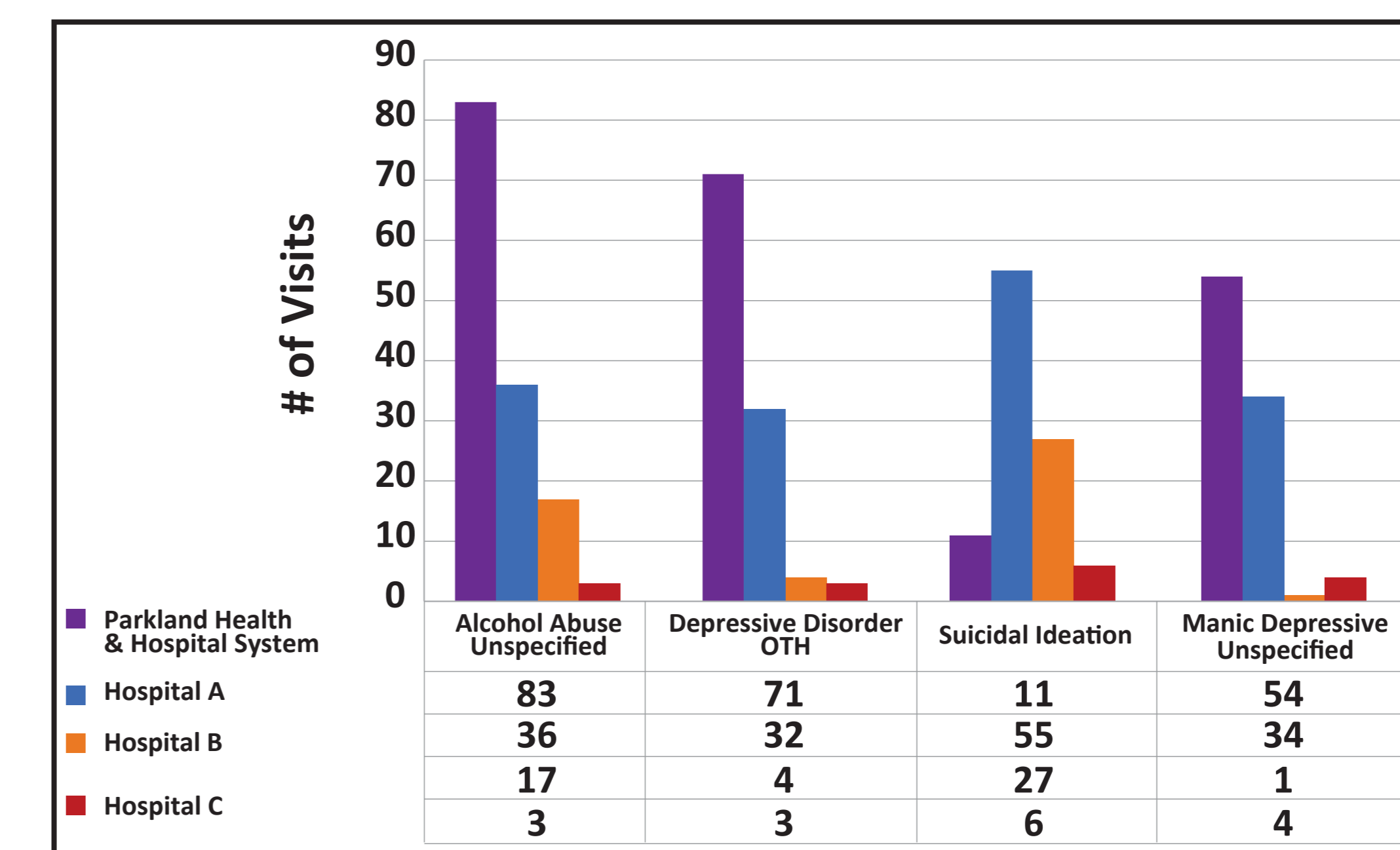
C Payor Mix Breakdown
(Top 78 High ED Utilizers)



D Top 12 Reasons for ED Visits
(Top 78 High ED Utilizers)

Principal Diagnosis	# of Visits
UNSPEC CHEST PAIN	246
HEADACHE	164
OTH CHEST PAIN	147
ABDOM PAIN UNSPEC SITE	143
ALCOHOL ABUSE UNSPEC	139
LUMBAGO	134
PAIN LIMB	124
OTHER CHRONIC PAIN	123
DEPRESSIVE DISORDER OTH	110
SUICIDAL IDEATION	99
OBSTRUCT CHRONIC BRONCHITIS W/EXAC	98
MANIC DEPRESSIVE UNSPEC	93

E Number of ED Visits for Mental Health Disorders
(Top 78 High ED Utilizers)



Conclusions

- Results of this analysis demonstrate that there is an opportunity for inter-organizational collaboration to address needs of the DFW Region's High ED Utilizer patients.
- Data-driven conclusions from this analysis can be transformed into actionable information for participating health systems to identify and jointly intervene with their shared High ED Utilizer patients.

Implications

- A multi-organizational initiative aimed at addressing the DFW Region's High ED Utilizers can lead to advancement of a Collaborative Coalition for Collective Community Health Impact.
- This inter-organizational Coalition has the potential to launch innovative initiatives expected to significantly impact community health upstream advancing population health where it begins in the community rather than waiting for downstream detection of disease and chronic illness in ED's and inpatient hospitals.