

Data Analysis: Duval CHD Hospital Emergency Room Alternatives Program

LIP Council Presentation

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The Duval County Health Department (DCHD) Hospital Emergency Room Alternatives Program (HERAP) requested a statistical analysis of health seeking behavior of HERAP disease management clients by the DCHD Institute for Public Health Informatics and Research (IPHIR).

IPHIR analyzed 521 HERAP clients' utilization of hospital emergency rooms and length of stay, if hospitalized, from January 1, 2009 through September 30, 2009 for up to 180 days prior to and after HERAP disease management enrollment.

The IPHIR results showed that HERAP client ER use was reduced by 38.8% after enrollment compared to an equal time period prior to enrollment. The results were even more dramatic in the area of hospital days, with a reduction of 74.8%.

	ER_Pre (visits)	ER_Post (Visits)	LOS_Pre (days)	LOS_Post (days)
Sum	186	82	1007	145
Percent Diff (Post-Pre)	38.8% decrease		74.8% decrease	
p-val of Diff	p<0.001		p<0.001	

Since the majority of HERAP's clients were referred by participating hospitals as inpatient discharges, the most significant HERAP impact is in the area of inpatient days. The majority of discharged clients were hospitalized after an ER visit.

IPHIR also calculated the cost of services (with charges as a proxy for cost) for hospitals serving self-pay clients with ambulatory care sensitive medical conditions. These clients represent the vast majority of HERAP disease management clients.

All Duval County Hospitals	ER	INPATIENT
# of encounters/admissions	17,902	2,885
Length of stay in days	n/a	4.04
Charges	\$ 29,815,033	\$ 63,859,699
Cost per encounter/stay	\$ 1,665	\$ 22,290

In calculating the cost effectiveness of HERAP's interventions, the following table gives a sense of the magnitude of cost saving potential of collaborative hospital and health efforts to better serve the self pay clients:

HERAP Clients	ER Visits	Inpatient Admissions
Hospital visits prior to enrollment	186	222
Hospital visits after enrollment	82	57
Reduction	104	165
Estimated savings	\$173,368	\$3,677,850

The favorable results can be attributed to striving to use a comprehensive system of care approach with strong disease and medical condition management connected to a medical home. Specific elements include:

- Clients whose ambulatory care sensitive health care needs could be effectively managed in outpatient settings
- No financial or structural barriers to providing disease management services
- Disease management centers offering free diagnostic testing of A1C levels, cholesterol, pulmonary lung function services, and PTINR monitoring of CHF
- RN managed walk-in clinics
- Multidisciplinary team support
- Chronic disease self management training
- Close collaboration with physician medical homes
- Individual hospital partnerships
- An overarching outreach philosophy of bringing services to neighborhoods

It appears that county health departments are uniquely positioned in their communities to assist their local hospital systems to better manage their self pay clients, particularly those with ambulatory care sensitive conditions.