

Sarasota Health Care Access: 2007-2009 Impacts and Opportunities



Melanie Michael, M.S., ARNP-C
Division Director
Clinical & Community Health Services
Sarasota County Health Department



1

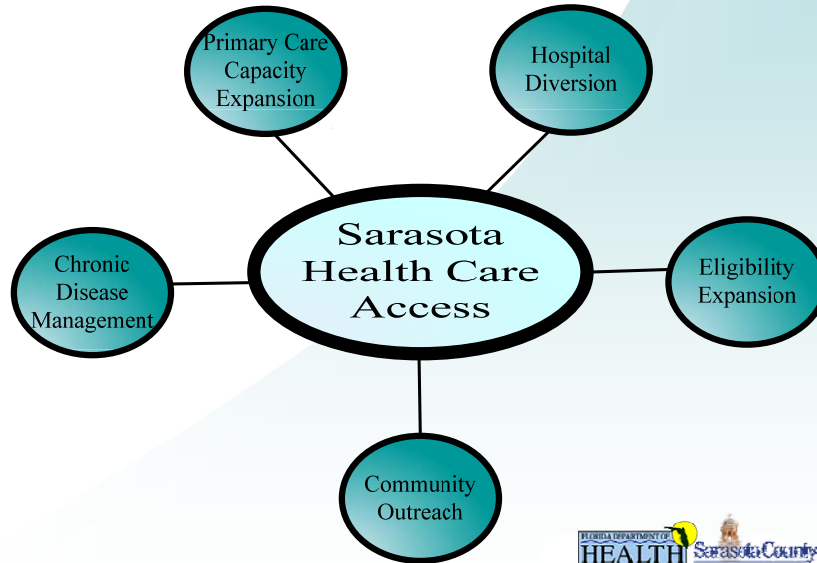
Purpose

- Evaluate the impact of Sarasota Health Care Access (SHCA) on target population
 - Emergency room utilization
 - In-patient hospitalizations (admissions)
 - Primary care engagement/utilization
 - Access to affordable medication
 - Access to disease self-management training
- Establish baseline reference measures for future comparison
- Improve model specification
- Support the development of “best practices” and benchmarks for diversion/prevention projects



2

Sarasota Health Care Access



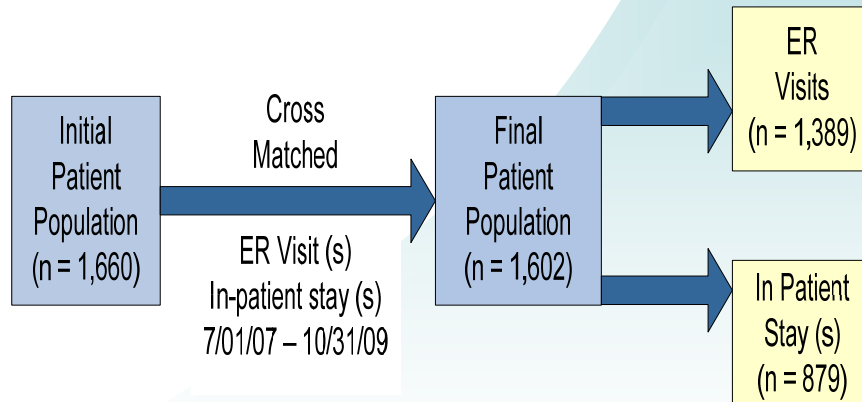
Evaluation Model and Methods

- Retrospective “community intervention” model
- Time series
- Before – after within patient group comparison

Methods/Procedures

- Patient group and data set stratification
 - 1,660 patients referred to SHCA from Sarasota Memorial Hospital (SMH) between 7/1/07 and 10/31/09
 - Cross matched
 - Final patient population size: 1,602
- Categories
 - Emergency room visits
 - In-patient admissions/stays
- Calculations/analysis
 - Before and after utilization rate per 1,000 patient days
 - Mean (M) difference
 - Annualized projection of utilization and financial impact
- Subset evaluation
 - Patients with number of ER or in-patient admissions at or below 95th percentile based on frequency of ER visits or in-patient admissions

Flow of Patient Groups Included in Analysis Based on Utilization



Patient Population: Descriptive Statistics

- Age
 - Range: <1 - 81
 - Mean: 40
 - Median: 43
 - Mode: 45
- Gender
 - Male: 53%
 - Female: 45%
 - Unreported: 2%
- Race
 - White: 77%
 - Black: 20%
 - Other: <2%
 - Unknown: <2%
- Payer Source
 - Uninsured: 72%
 - Medicaid: 16%
 - Medicaid HMO: 9%
 - Medicare: 2%
 - Other: 1%

Analysis Results: ER Visits

ER Visit Subgroup	Pre-referral		Post-referral		M difference/ 1,000 days
	M visits/ 1,000 days	95% CI	M visits/ 1,000 days	95% CI	
All (n=1,389)	4.53	4.23-4.79	4.34	3.82 – 4.81	0.19
95th Percentile* (n=1,323)	3.85	3.71 – 3.97	3.35	3.10 – 3.58	0.50**

*sample limited to patients with number of ER visits at or below 95th percentile based on visit frequency

** Significant value ($p < 0.05$)

Analysis Results: ER Visits

ER visit subgroup	Difference/ 1,000 days	Decrease in visits/year	Range: Decrease in visits/year
All	0.19	NS	NS
95 th %	0.50**	241.4	62.8-420.1

Annual decrease in ER visits/year	Average charge/ER visit*	Estimated reduction/year
241.4	\$1,212	\$292,577

*Source: AHCA/<http://www.floridahealthfinder.gov/>

** Significant value ($p < 0.05$)



11

Analysis Results: In-patient Admissions

In-patient admission subgroup	Pre-referral		Post-referral		M difference/ 1,000 days
	M admissions/ 1,000 days	95% CI	M admissions/ 1,000 days	95% CI	
All (n=879)	2.75	2.75 - 2.76	1.47	1.27 - 1.65	1.28**
95 th Percentile* (n=851)	2.62	2.60 - 2.64	1.15	1.03 - 1.27	1.47**

*sample limited to patients with number of admissions at or below 95th percentile based on frequency of admission

**Significant value ($p < 0.05$)



12

Analysis Results: In-patient Admissions

In-patient admission subgroup	Difference/ 1,000 days	Decrease in admissions/year	Range: Decrease in admissions/year
All	1.28*	410.7	352.0 – 478.0
95 th %	1.47*	456.6	425.5 – 487.7

*Significant value ($p < 0.05$)

Expense Impact: In-patient Stay Reduction

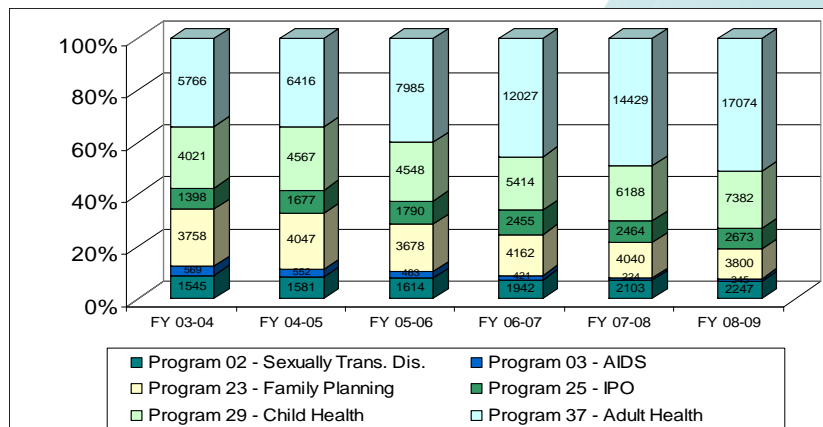
In-patient admission subgroup	Decrease in in-patient admissions/year	Average days/admission	Decrease in-patient days/year	Average expense/day*	Estimated expense savings/year
All	410.7	6.6	2,710.62	\$1,836	\$4,976,698
95 th %	456.6	6.7	3,059.22	\$1,836	\$5,616,728

*Source: AHCA/Florida Hospital Financial Data 2007

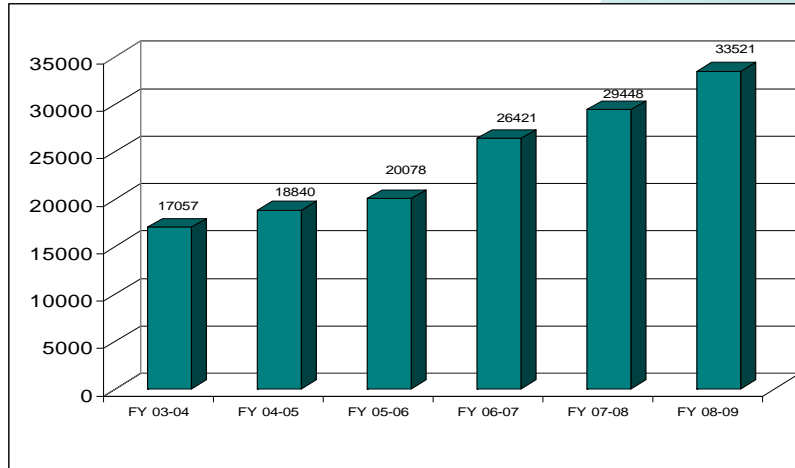
Sarasota Health Care Access Community Outreach

- Health marketing and communication plan objectives:
 - Heighten community awareness regarding access to affordable health care
 - Communicate information on program activities and outcomes
 - Engage community partners and stakeholders

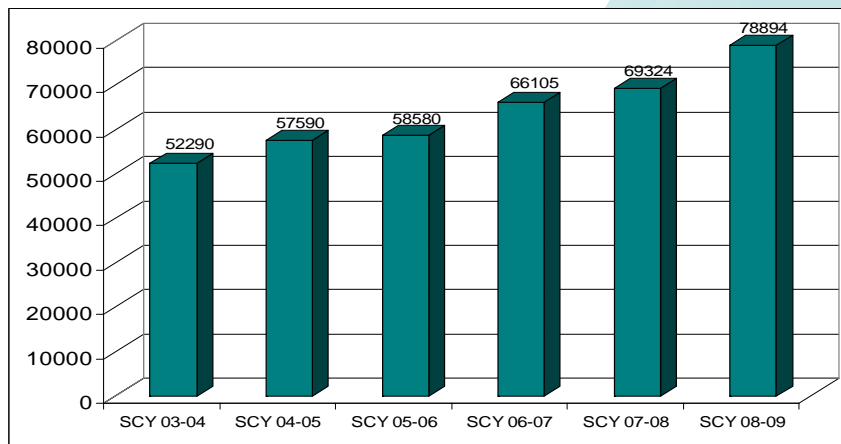
SCHD Primary Care Program Utilization: Unduplicated Patients by Program



SCHD Primary Care Program Utilization: Unduplicated Patient Counts Over Time



SCHD Primary Care Program Utilization: Primary Care Visits Over Time



Healthy Living Project

- Evidence based chronic disease patient education
- Stanford Chronic Disease Self-Management Program model
- Cost per participant: \$70 - \$200*
- Annual estimate of health care system cost savings per patient: \$295 - \$750/year*

*Sources: Lorig, et al. *Medical Care*, 39(11), 1217-1223; Sobel, et al. *The Permanente Journal* 6(2), 15-22

Analysis/Evaluation Limitations

- Evaluation methodology does not establish a “cause and effect” relationship
- Pre- and post-intervention periods not time bounded
- Results do not factor utilization of other primary care and/or hospital based services
- Expense/charge averages may not accurately reflect those of the patient population
- Evaluation period not adequate for assessment of long term impacts
- Financial impact calculations do not factor third party or client payments

Implications

- Preliminary evidence
 - Impact on health system utilization and costs
 - Need for further model evaluation and modification
 - Need for ongoing/continued quantitative and qualitative evaluation
 - Value of and need for ongoing exchange of service utilization data among project partners

• Thank You
• &
• Questions