

Baptist Health South Florida Tele Health Programs

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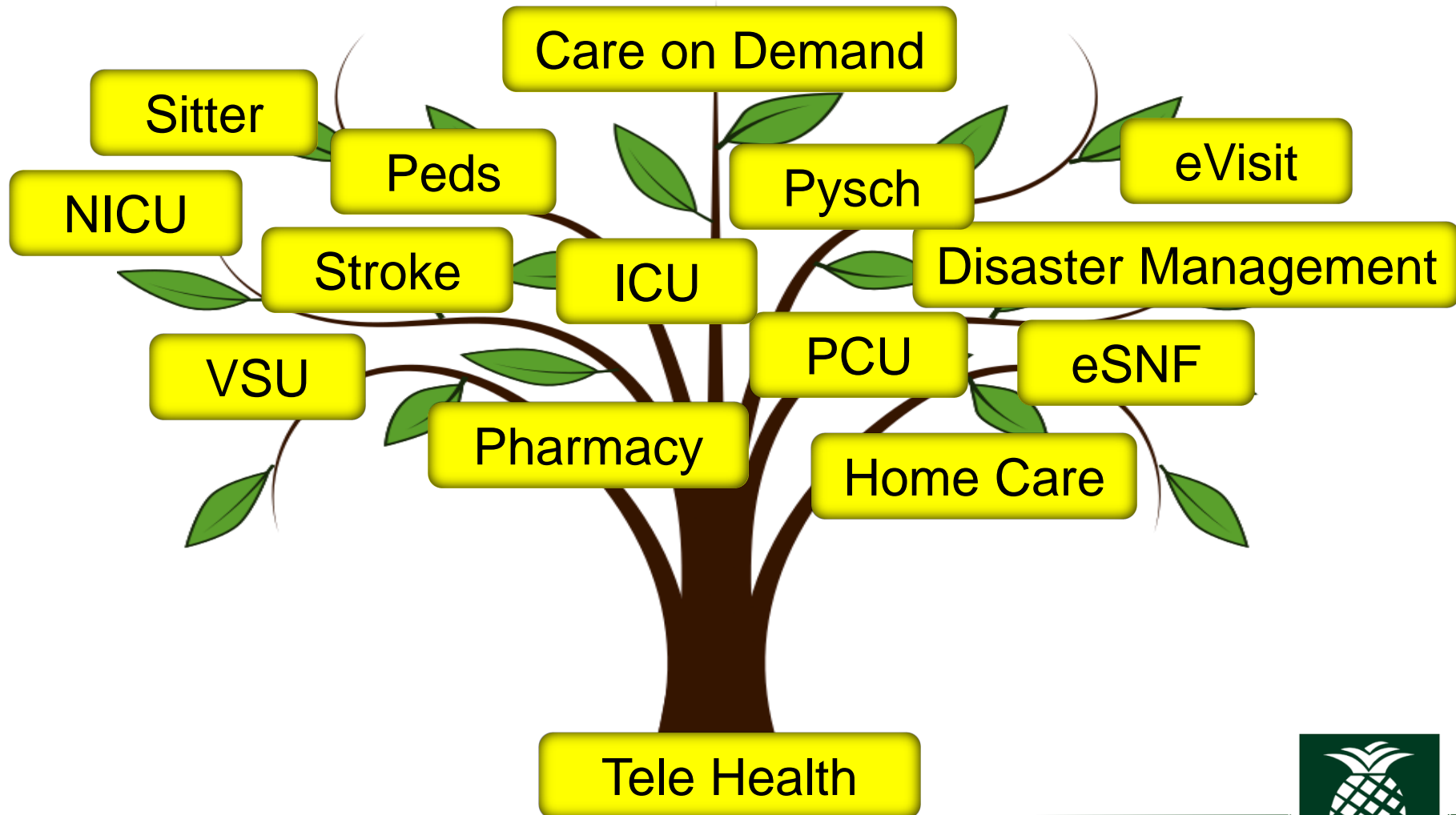


Goal & Intent

- Demonstrate cost efficient access to care leveraging Telehealth technology
- Develop and ensure continued growth of our telehealth programs
- Highlight the importance of integration along the continuum of care beyond traditional 'brick and mortar'



Telehealth Programs



Baptist Health Tele-ICU Program

- Launched in December 2005
- High level surveillance of patients using 2-way video and advanced software with artificial intelligence
- 165 hardwired beds across 6 hospitals
 - Standard of Care for ALL patients in ICU
 - 35% of tele-ICU beds are in PCU
- 7 mobile carts – ED, PCU and dialysis
- 24/7 Intensivists
- 24/7 Critical Care Nurses
- Clinical ePharmacists – 7 days a week
- Proven Patient Outcomes
- Proven ROI



LEAPFROG staffing Savings

A Mixed Methods Study of Tele-ICU Nursing Interventions to Prevent Failure to Rescue of Patients in Critical Care

Conclusions:

Odds of Failure to Rescue for CM Interventions

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[Original Research Critical Care Medicine]

CHEST

ICU Telemedicine Program Financial Outcomes



Clinical outcomes after telemedicine intensive care unit implementation*

Beth Willmitch, RN, BSN; Susan Golembeski, PhD, RN, CHRC; Sandy S. Kim, MA, MEd;
Loren D. Nelson, MD, FACS, FCCM; Louis Gidel, MD, PhD, FCCP Published: Critical Care Medicine Feb 2012

Objective: To examine clinical outcomes before and after implementation of a telemedicine program in the intensive care units of a five-hospital healthcare system.

Design: Observational study with the baseline period of 1 yr before the start of a telemedicine intensive care unit program implementation at each of 5 hospitals. The post periods are 1, 2, and 3 yrs after telemedicine intensive care unit program implementation at each hospital.

Setting: Ten adult intensive care units (114 beds) in five community hospitals in south Florida. A telemedicine intensive care unit program with remote 24/7 intensivist and critical care nurse electronic monitoring was implemented by a phased approach between December 2005 and July 2007.

Measurements and Main Results: Records from 24,656 adult intensive care unit patients were analyzed. Hospital length of stay, intensive care unit length of stay, hospital mortality, and Case Mix Index were measured. Severity of illness using All Patient Refined-

Diagnosis Related Groups scores was used as a covariate. From the baseline year to year 3 postimplementation, the severity-adjusted hospital length of stay was lowered from 11.86 days (95% confidence interval [CI] 11.55–12.21) to 10.16 days (95% CI 9.80–10.53; $p < .001$), severity-adjusted intensive care unit length of stay was lowered from 4.35 days (95% CI 4.22–4.49) to 3.80 days (95% CI 3.65–3.94; $p < .001$), and the relative risk of hospital mortality decreased to 0.77 (95% CI 0.69–0.87; $p < .001$).

Conclusions: After 3 yrs of deployment of a telemedicine intensive care unit program, this retrospective observational study of mortality and length of stay outcomes included all cases admitted to an adult intensive care unit and found statistically significant decreases in severity-adjusted hospital length of stay of 14.2%, intensive care unit length of stay of 12.6%, and relative risk of hospital mortality of 23%, respectively, in a multihospital healthcare system. (Crit Care Med 2012; 40:450–454)

Key Words: ICU outcomes; tele-ICU; telemedicine

; Teresa Rincon, RN, BSN; Shawn E. Cody, PhD, MSN/MBA, RN; after FCCP; for the UMass Memorial Critical Care Operations Group

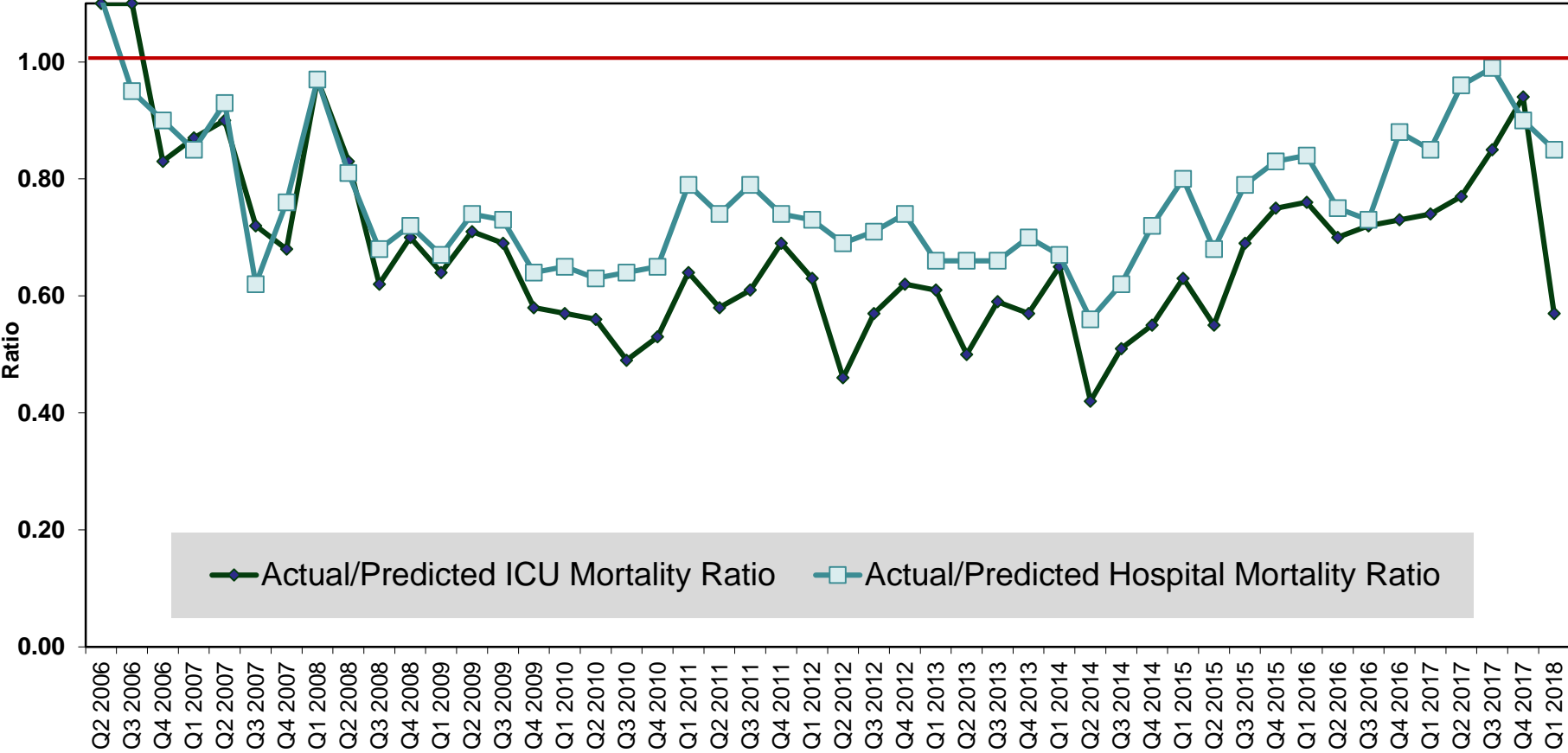
telemedicine improves access to high-quality critical care, has substantial financial outcomes. Detailed information about financial outcomes and following ICU telemedicine implementation and after the addition of has not been published to our knowledge.

ity of properly modified ICU telemedicine programs to increase case high-quality critical care with improved annual direct contribution here is a financial argument to encourage the wider adoption of ICU

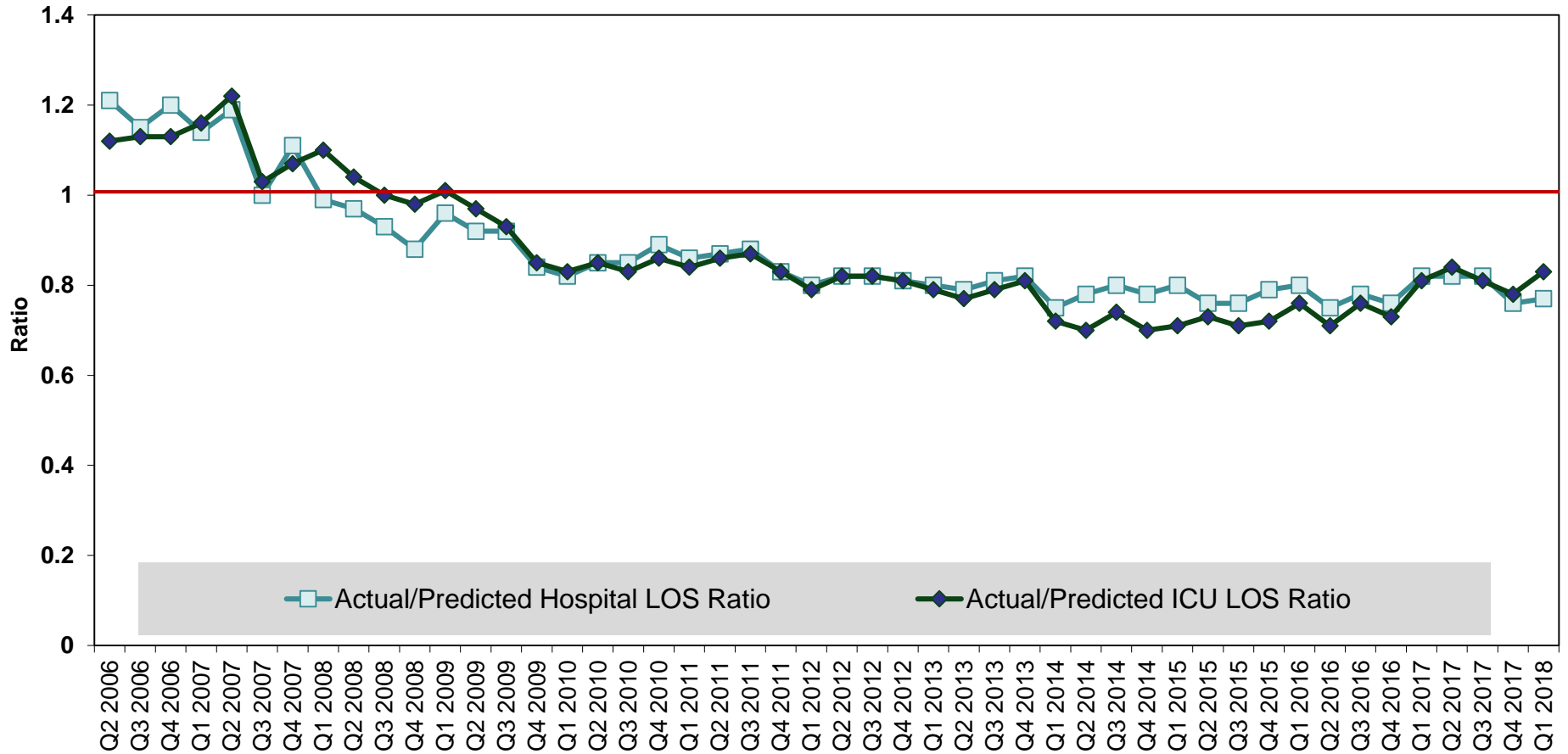
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Actual/Predicted Mortality Ratios



Actual/Predicted LOS Ratios

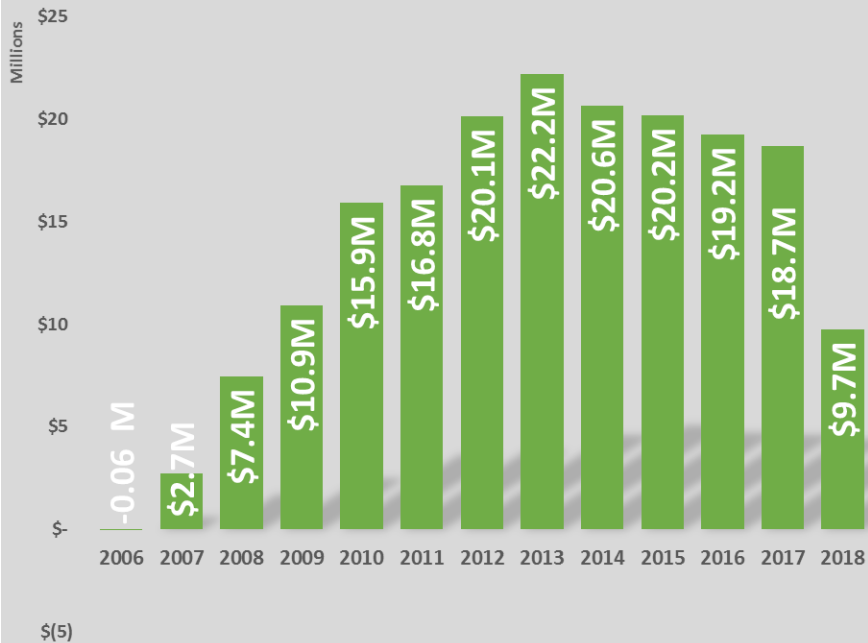


Total and Per Patient LOS Savings vs. APACHE

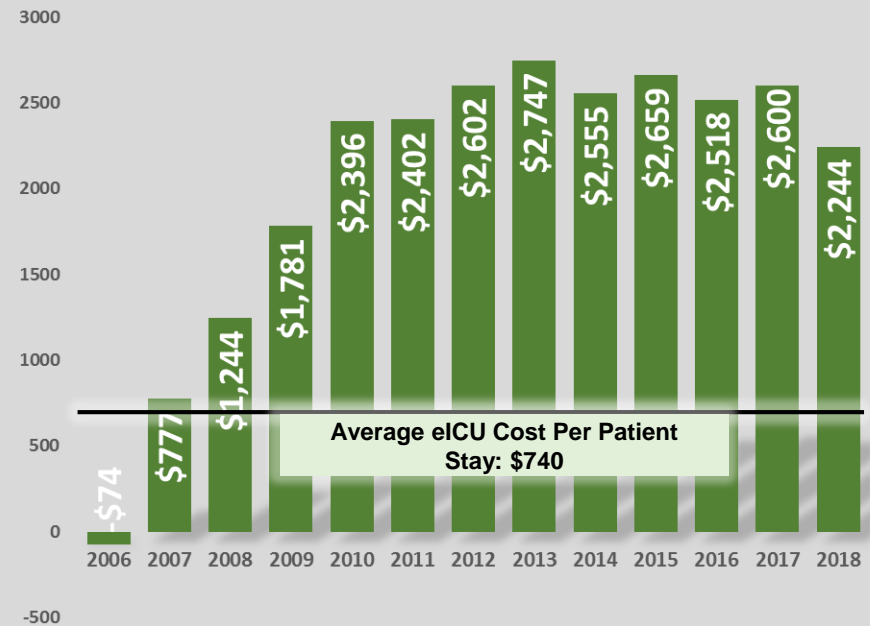
Predicted All ICU Patients

Total LOS Savings for ICU Patients

\$181M saved above predicted since 2007

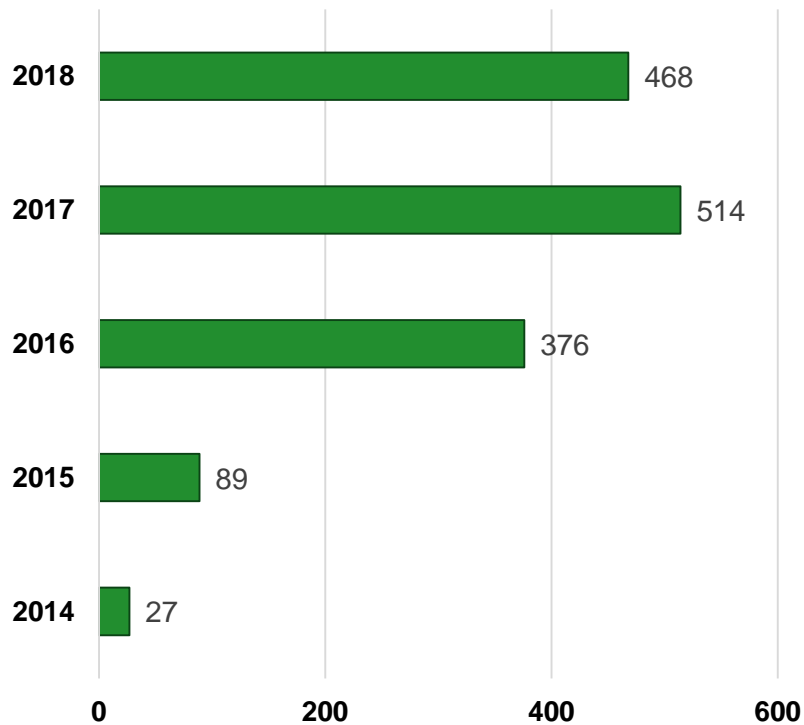


Average LOS Savings per ICU Patient



Tele - Stroke

Yearly Tele Stroke Volume



Total Volume

1,474



At bedside with
the patient

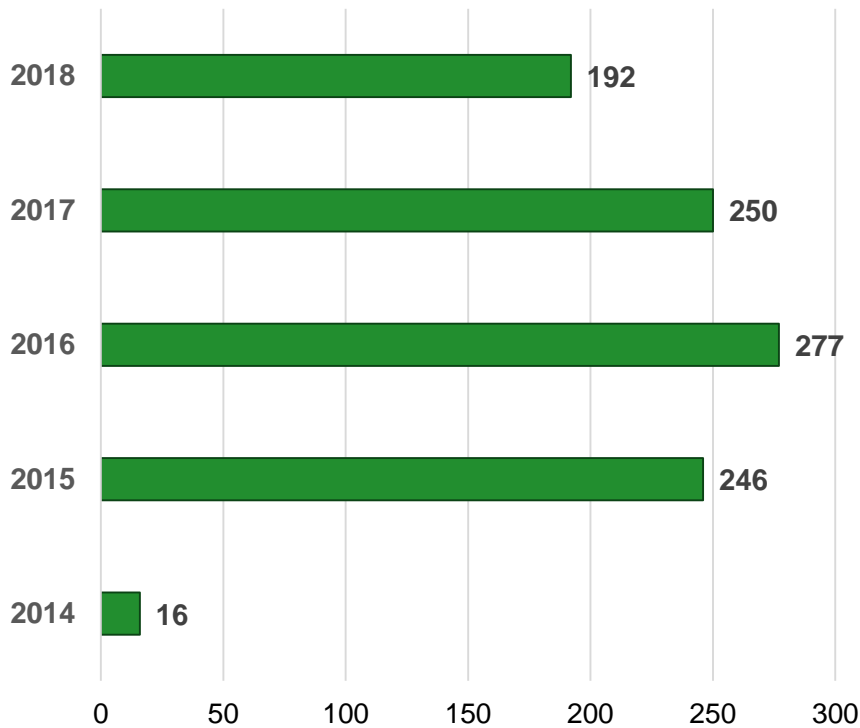


At home or
office with the
Neurologist



Tele Psych

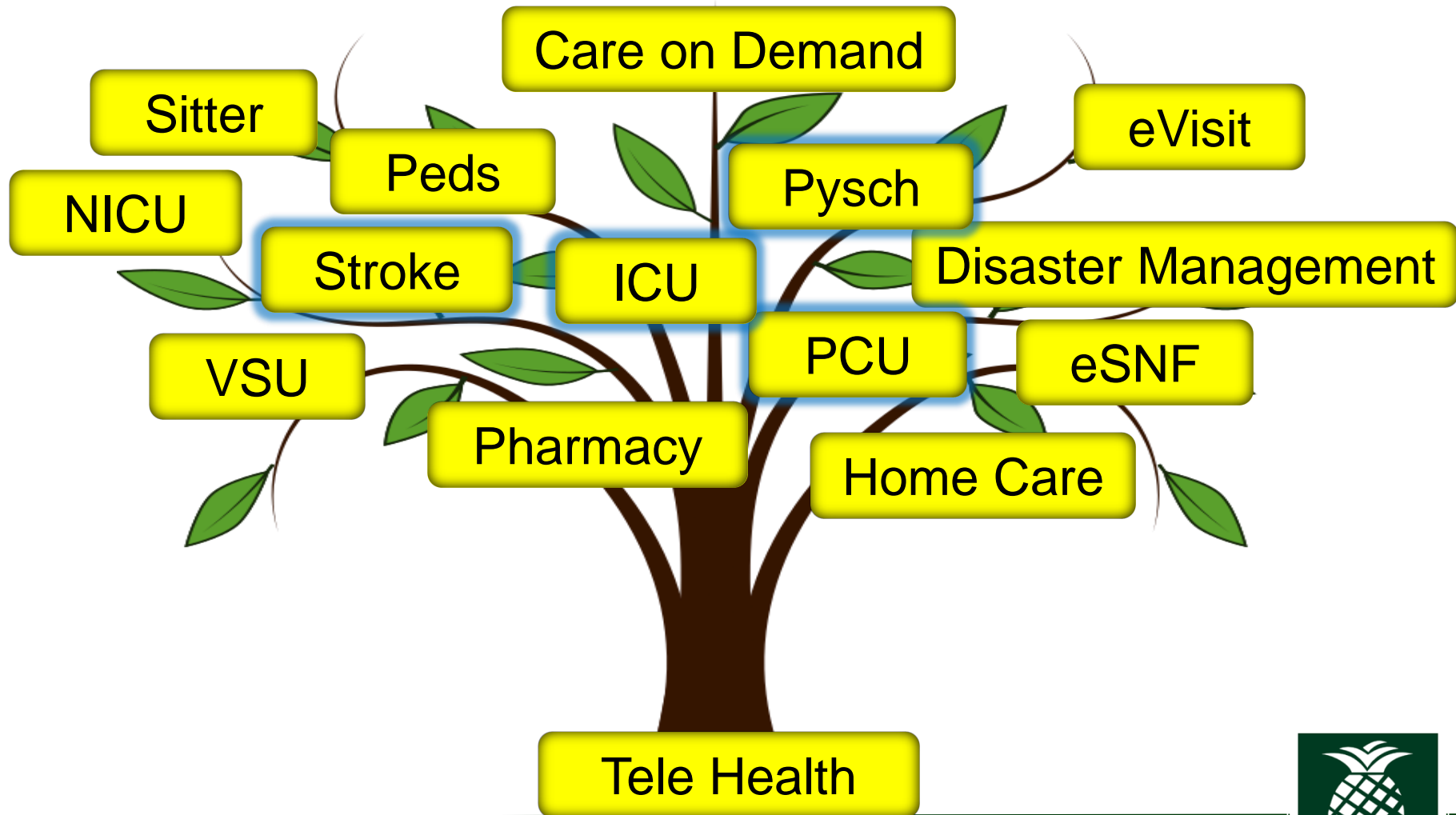
Yearly Tele-Psych Volume



Total Volume
981



Tele Health Programs



Homecare Volume & Readmission Rates

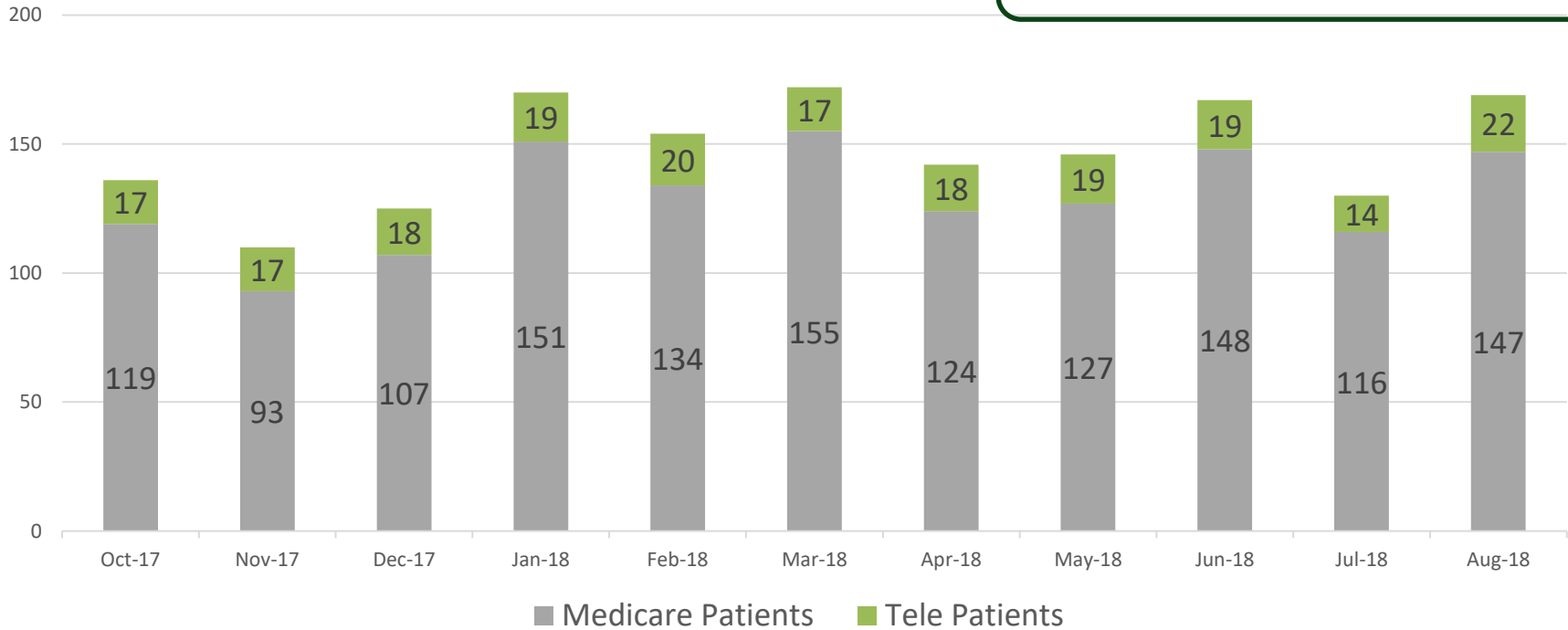
Average % of Tele Volume: **12.5%**

Average Readmission Rate

Medicare (Non Tele) Pts 10.5%

Tele Pts 7.0 %

Tele / Non-Tele Homecare Volume

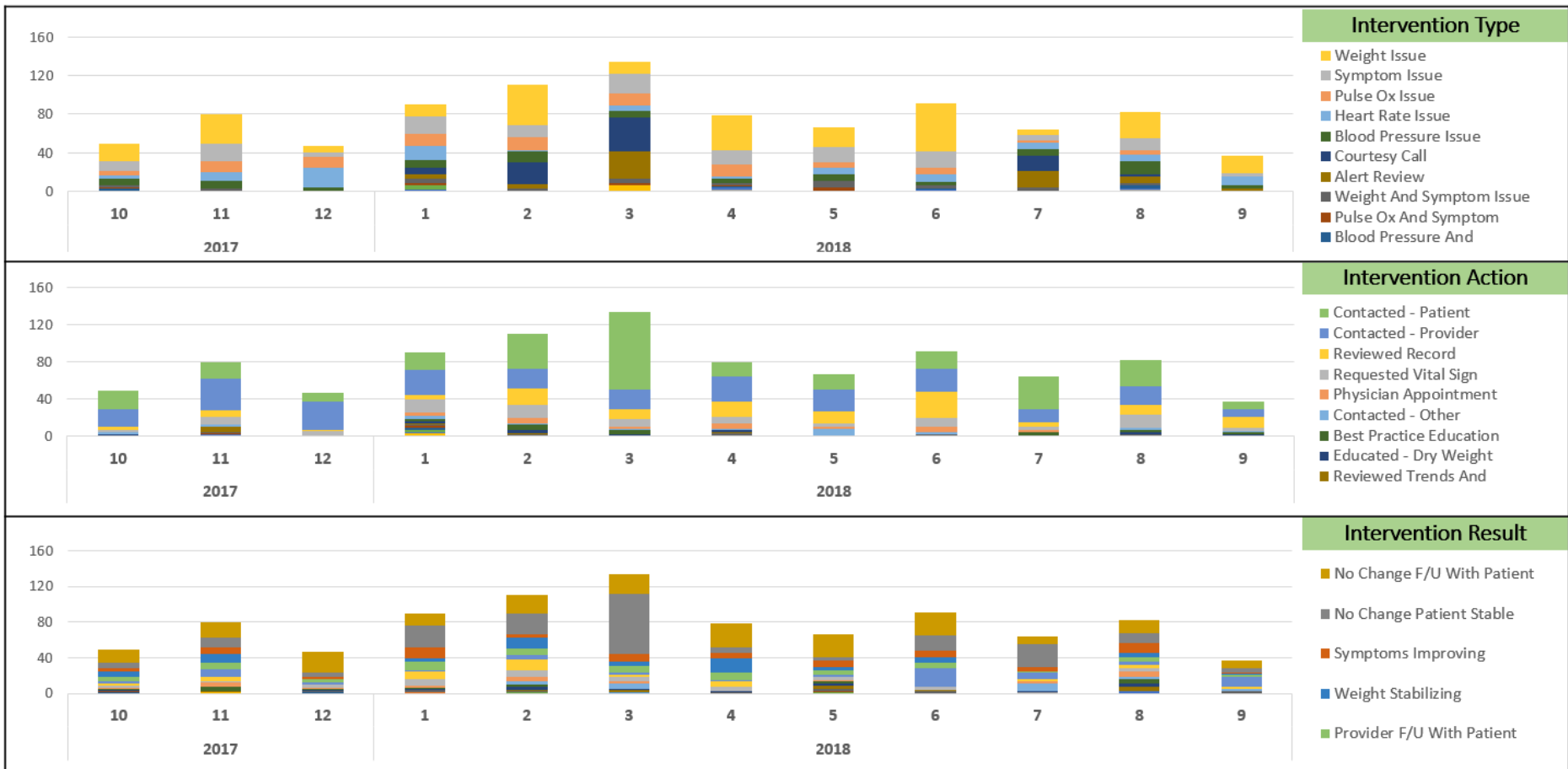


Telehealth Intervention Rollup

Intervention Type	Intervention Action	Intervention Result
Weight Issue 29.8%	Contacted - Patient 33.4%	No Change F/U With... 24.1%
Symptom Issue 16.5%	Contacted - Provider 29.2%	No Change Patient Stable 22.3%
Pulse Ox Issue 10.4%	Reviewed Record 13.9%	Symptoms Improving 8.1%
Heart Rate Issue 10.2%	Requested Vital Sign 10.3%	Weight Stabilizing 7.4%
Blood Pressure Issue 8.8%	Physician Appointment 2.8%	Provider F/U With Patient 7.4%
Courtesy Call 8.7%	Contacted - Other 2.7%	Usual Biometric Trend 7.3%
Alert Review 7.0%	Best Practice Education 1.9%	Education Understood 4.8%
Weight And Symptom... 3.6%	Educated - Dry Weight 1.8%	Pulse Ox Stabilizing 4.5%
Pulse Ox And Symptom 1.3%	Reviewed Trends And 1.1%	Blood Pressure Stabilizing 3.0%
Blood Pressure And 1.0%	Educated - Other 1.1%	Courtesy Call Completed 2.5%
Other 0.8%	Disease Education 0.4%	Medication Change 2.0%
Compliance Issue 0.6%	Educated - Taking... 0.3%	Record Updated 1.8%
Chart Review 0.5%	Education Complete 0.3%	Heart Rate Stabilizing 1.8%
Heart Rate And... 0.5%	Educated - Daily Health 0.2%	Unknown 1.5%
Disease Mgmt 0.1%	Educated - Low Sodium 0.2%	Pulse Ox And... 0.2%
NonAdherence 0.1%	Educated - Self 0.1%	ER/Urgent Care Visit 0.2%
	Educated - Sx... 0.1%	Hospitalization 0.2%
	Medication Review 0.1%	Blood Pressure And... 0.2%
		Weight And Symptoms... 0.1%
		Alert Monitoring &... 0.1%
		D/C To Care Of Family 0.1%
		Heart Rate And... 0.1%

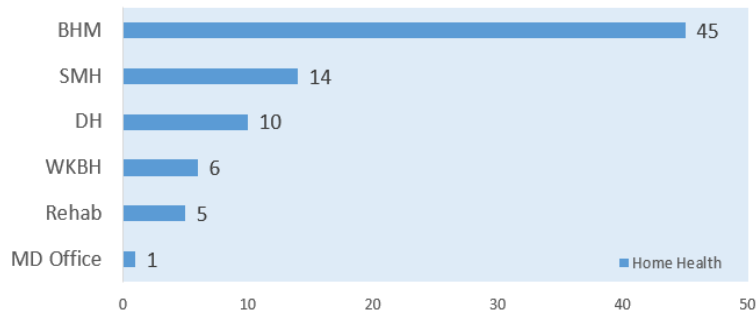


Telehealth Intervention Type, Action & Result

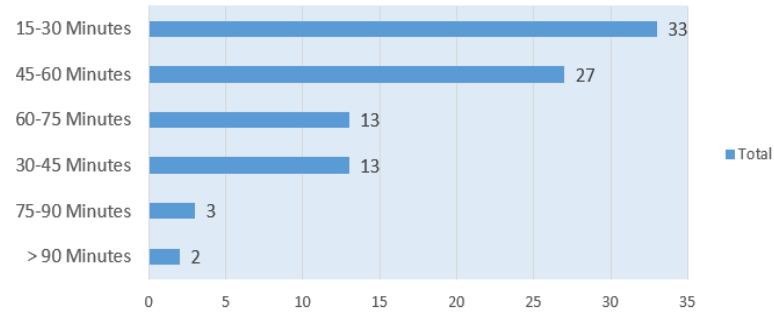


Tele Pharmacy Data

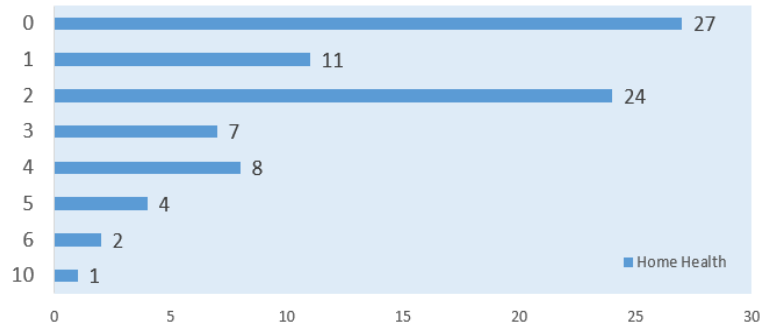
Tele Pharmacy Home Health Volume FY 2018: **91 Total**



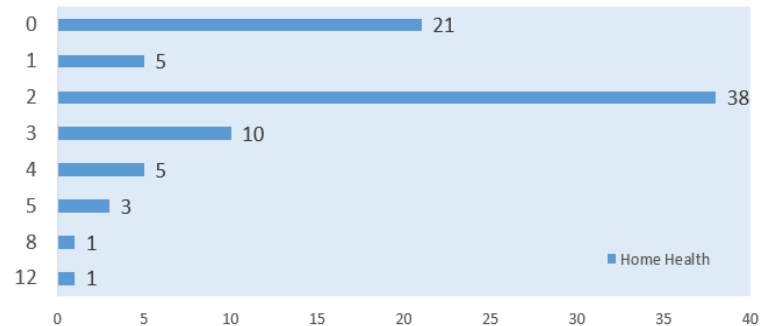
Time on Intervention



Count of Drug Drug Interaction



Count of Food Drug Interaction



Thank You

