Acute and Chronic Disease Management in Home Telehealth

Patient Provider Community Telehealth Network
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ATA

Presented by:
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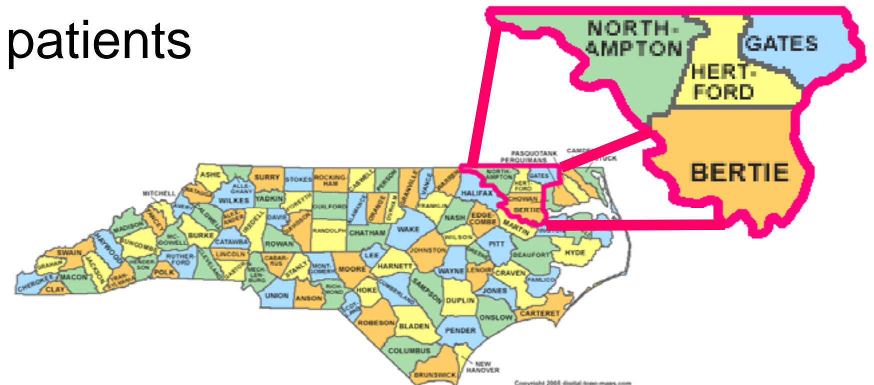
Roanoke Chowan Community Health Center

RCCHC's Mission:

- ✓ Improve health status of underserved and indigent individuals in northeastern North Carolina by:
  - ✓ Enhancing access to quality health care
  - ✓ Implementing coordinated health care delivery best practices

Located in rural North Carolina

17 PCP at 3 clinics serving over 14,500 patients



Population:

- ✓ 21% uninsured
- ✓ 41% high school completion
- ✓ 70% African American

Expansion of current telehealth models of care

- ✓ **Driven by the provider and the patient**
- ✓ **Technology placed in homes and the community**
- ✓ **Provider responds to critical indicators allowing early detection and intervention**
- ✓ **Technology allows unlimited users per kiosk**

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Patient Provider Community Telehealth Network

Goals

- ✓ Reduce health disparities
- ✓ Increase access to care
- ✓ Overcome barriers to care
- ✓ Contain health care expenditures
- ✓ Create community based telehealth network

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Target Populations
Cardiovascular Disease and Diabetes

In-home daily monitoring

- ✓ Daily objective and subjective monitoring (BP, P, FSBS, O2 saturation, Weight, S&S)
- ✓ Daily health assessment
- ✓ Daily education

Kiosks weekly monitoring

- ✓ Weekly subjective and objective monitoring (BP,P, FSBS,O2 saturation, Weight, S&S)
- ✓ Weekly health assessment
- ✓ Weekly education

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Role of Primary Care Provider

Determines:

- ✓ Type of Technology
- ✓ Site of monitoring
- ✓ Frequency of monitoring
- ✓ Monitoring parameters

Reviews abnormal data indicators

Determines medical intervention

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Populations served

In-home monitoring

- ✓ 198 CVD/DM/HTN patients

Kiosk screenings and monitoring

- ✓ 35 population based CVD, HTN, DM screenings for 1,750 citizens
- ✓ 83 Center of Aging participants

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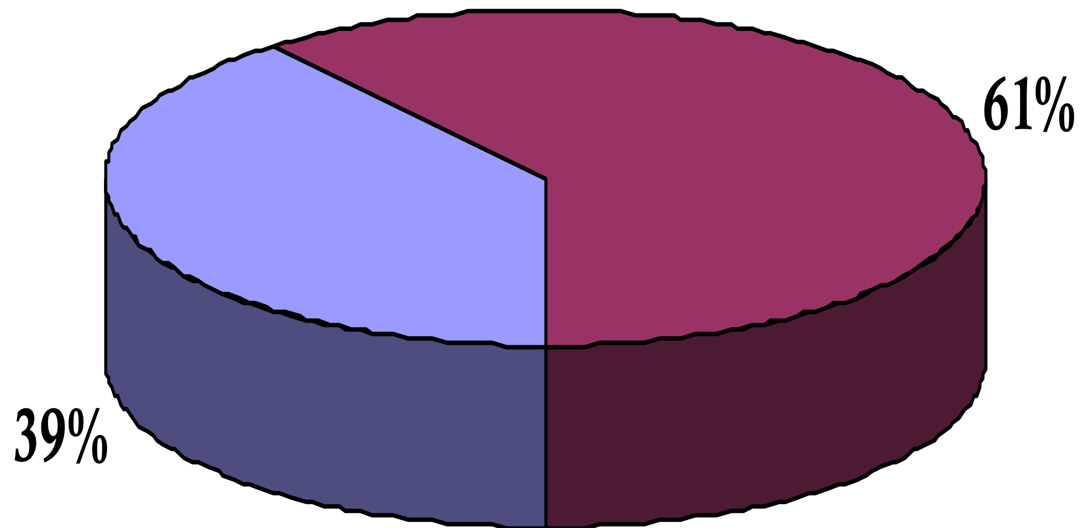
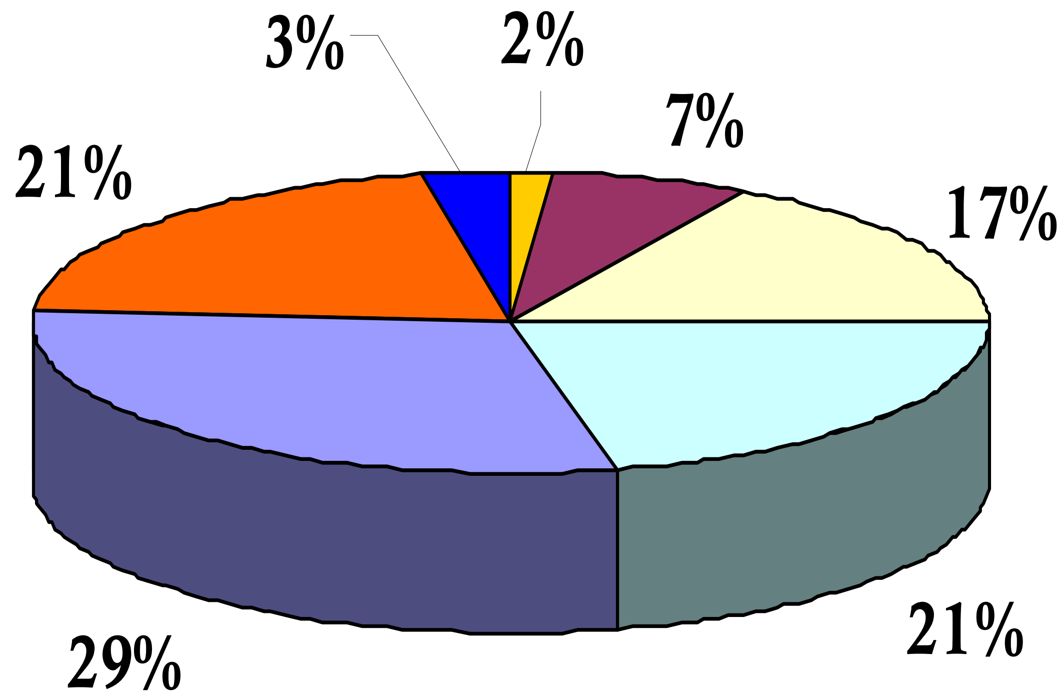
Patient Gender

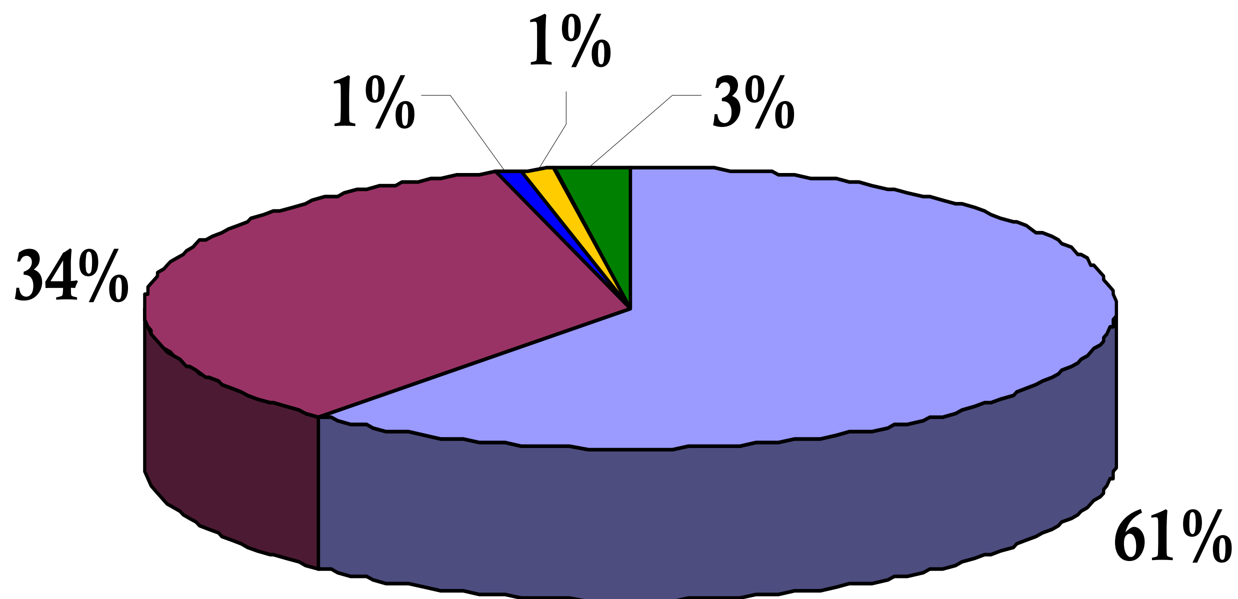


Male Female

Patient Age Range

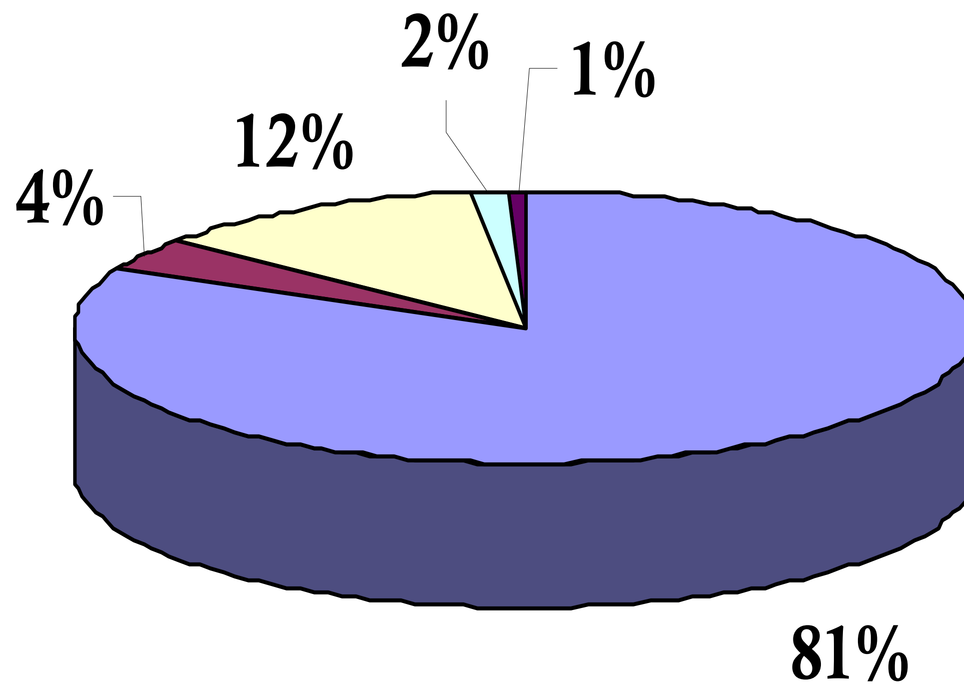


Patient Ethnicity



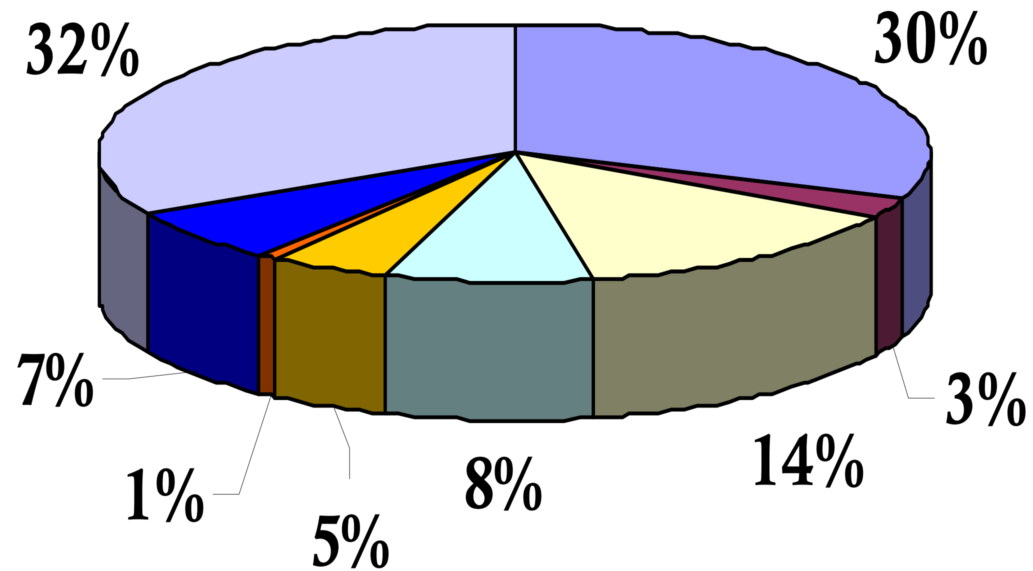
African American
Caucasian
Oriental/Asian
Hispanic/Latino
Not Stated

Monitoring Disease



CVD DM CVD/DM Obesity Not Stated

Payor Source



MCR
MCD
MCR/MCD
Dual Eligible
Sliding Fee
Self
Other
Not Stated

In-home Patient Outcomes

- ✓ Enhanced self-management skills
  - ✓ Increased self care
  - ✓ Empowered patient/caregiver
- ✓ Improved patient health status
  - ✓ Decreased HgA1c
  - ✓ Decreased FSBS
  - ✓ Decreased BP
  - ✓ Decreased weight

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In-home Patient Outcomes

Patient Impact

- ✓ Increased access to medical care
- ✓ Reduced health disparities
- ✓ Increased satisfaction
- ✓ Increased compliance to medical regimen

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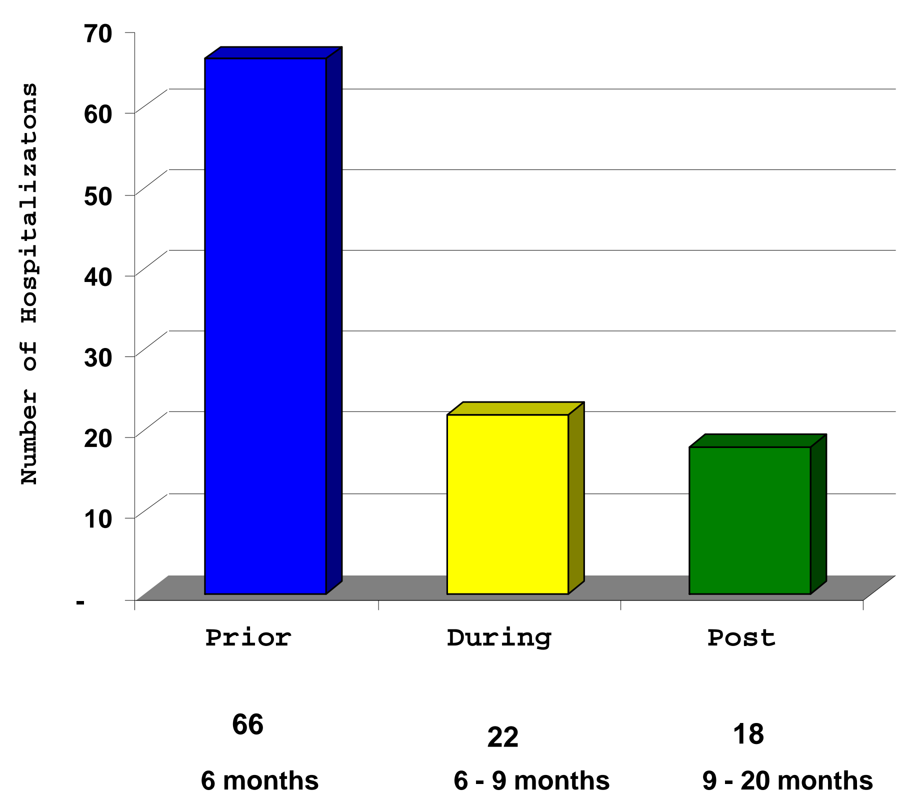
Patient Hospitalizations

n = 52 In-home patients

Telehealth patient hospitalizations decreased 67% from 6 months prior to telehealth to during telehealth. Patient hospitalizations decreased 73% from prior to telehealth to post telehealth.



Prior	During	Post
66	22	18
6 months	6 - 9 months	9 - 20 months

Hospitalizations

Prior to Telehealth: $1,419,888.36 (270 days total)

During Telehealth: $311,558.64 (81 days total)

Post to Telehealth: $204,504.36 (64 days total)

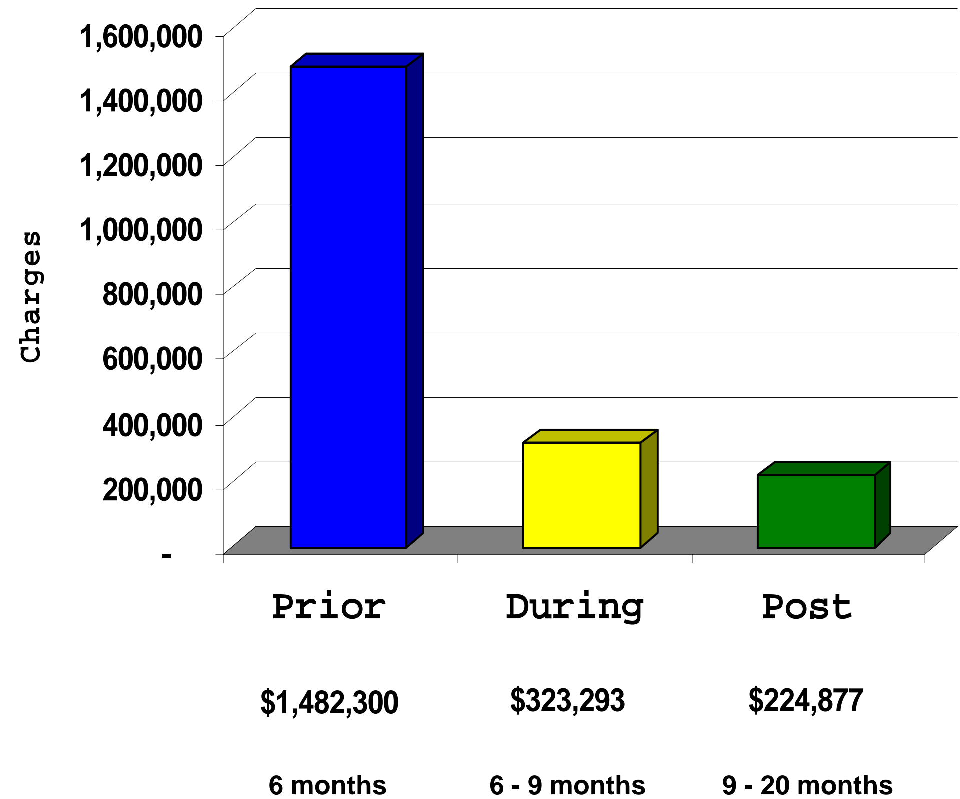
Analyzed charges are related to diseases being monitored.

RCCHC / PPCTN Patient Charge Data Ending March 2008

Patient Hospital Charges

n = 52 In-home patients

Telehealth patient charges decreased 78% from 6 months prior to telehealth to during telehealth. Patient charges decreased 85% from prior to telehealth to post telehealth.



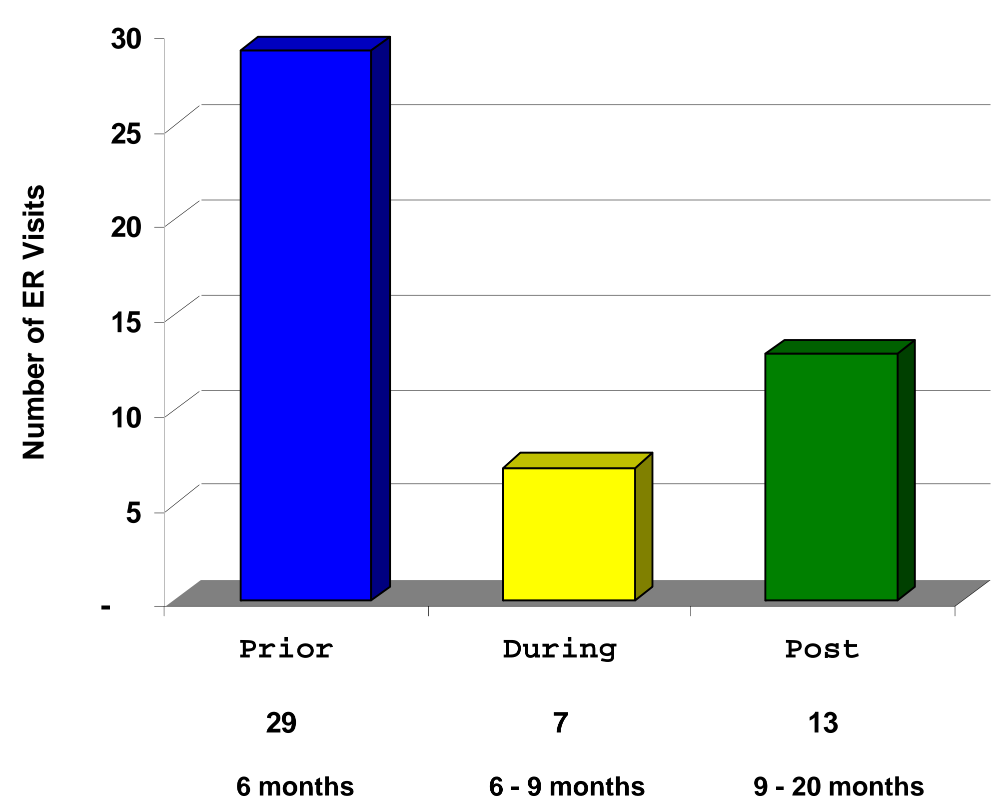
Analyzed charges are related to diseases being monitored.

RCCHC / PPCTN Patient Charge Data Ending March 2008

Patient Emergency Visits

n = 52 In-home patients

Telehealth patient ED visits decreased 76% from 6 months prior to telehealth to during telehealth. Patient ED visits decreased 55% from prior to telehealth to post telehealth.



Emergency Visits

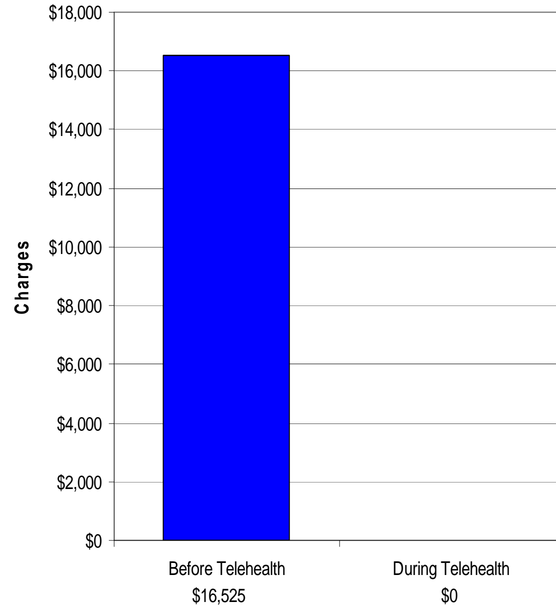
Prior to Telehealth: $62,411.60
During Telehealth: $11,734.81
Post to Telehealth: $20372.36

Analyzed charges are related to diseases being monitored.

RCCHC / PPCTN Patient Charge Data Ending March 2008

Patient Case Study

Hospital Charges



Number of Hospitalizations

Prior to PPCTN: 1 Hosp. (6 days total)

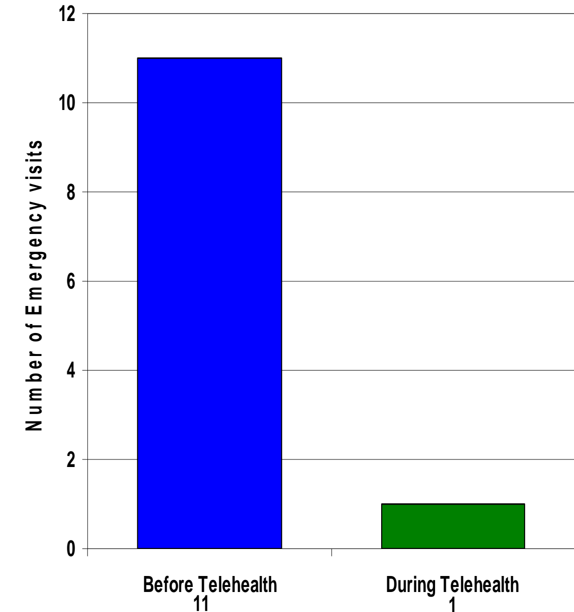
During PPCTN: 0 Hosp.

Charges decreased 100%

Dx: Congestive Heart Failure, Cardiovascular Disease, and Chronic Obstructive Pulmonary Disease

Patient's heart has less than a 20% Ejection Fraction. Prior to telehealth, patient could hardly walk around home without becoming short of breath. In addition to telehealth and medication changes, patient is now able to take walks outside of home measuring approximately two miles each day.

Emergency Visits



Number of Emergency Visits

Prior to PPCTN: 11 ED visits ($16,593.25)

During PPCTN: 1 ED visit

($2,277.39)

ED visits decreased 91%

ED charges decreased 86%

Analyzed charges are related to diseases being monitored.

RCCHC / PPCTN Cost Data Ending August 2007

Patient 185

Contact Information

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