Remote Monitoring & Chronic Care Management: A Community Health Center Model of Care

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Health Disparities

- Cardiovascular Disease
- Diabetes Mellitus
- Hypertension

Barriers to Care

- Transportation
- Economic status
- Low health literacy

Population

- 15.4% uninsured
- Median income - $23,500
- 70% African American

North Carolina's **telehealth program** provides daily home monitoring of chronic conditions.

Remote Patient Monitoring Framework

Proven to improve health and enhance care by interconnecting stakeholders to increase accountability and change patient behaviors

Devices measure health data

Glucose Monitor

Blood Pressure Monitor

Weight Scale

Health data is securely transferred

Health trends are displayed on a user-friendly dashboard

Patients and family learn from seeing health trends

Nurses monitor health data and trends

Alerts are escalated to primary care provider

Patient behavior is modified through teachable moments

Enhances care. Changes behaviors. Lowers costs.

Timeline – RCCHC Telehealth

- July 2006 – NC Health and Wellness Trust Grant
- October 2006 – HRSA OAT Grant
- 2007-2012 – Multi-discipline/area specific pilot grants
- October 2009-2013 – HRSA OAT COTN Grant
- 2011 – Vidant Health Development of RPM

Timeline – RCCHC Telehealth

- 2009-2016 – InScope Health – Public – Private Partnership
  - Co-Op
  - School Based
  - McLean Trucking
  - Corporate Wellness
- 2014 Direct Relief/NACHC BD Building Healthy Communities Award
- Now – RCCHC patients only

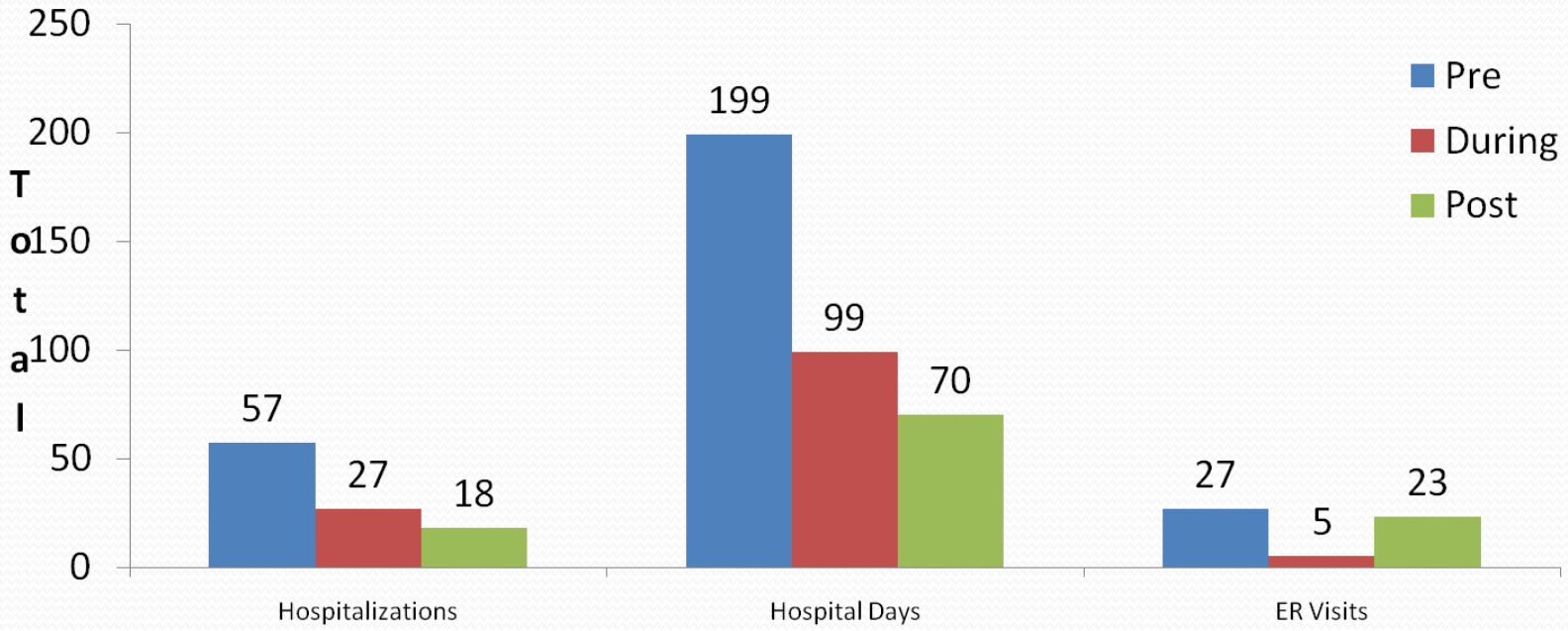
HWTF Phase I Study Protocol

- 2006-2009
- IRB Approved
- External evaluation – ECU/WFU

Hypothesis:

- CVD, DM, HTN patients who participate in daily in-home remote monitoring and chronic care management will experience:
  - Enhanced compliance
  - Increased self care
  - Reduced hospitalizations and bed days
  - Reduced ER visits
  - Reduced health care expenditures

Hospitalizations, Hospital Days and Emergency Room Visits by Telehealth Status, All Participants (N=64)



The Results

RPM cost containment validated by Wake Forest School of Medicine

64 Participants	Pre RPM 6 Months Prior to RPM	During RPM 6 Months During RPM	Post RPM Proven Long-term Results Over 3 Years
Hospital Bed Days	199	99	83% Reduction
ED Visits	27	5	79% Reduction
Hospital and ED Charges	$1.34M	$382K	87% Decrease

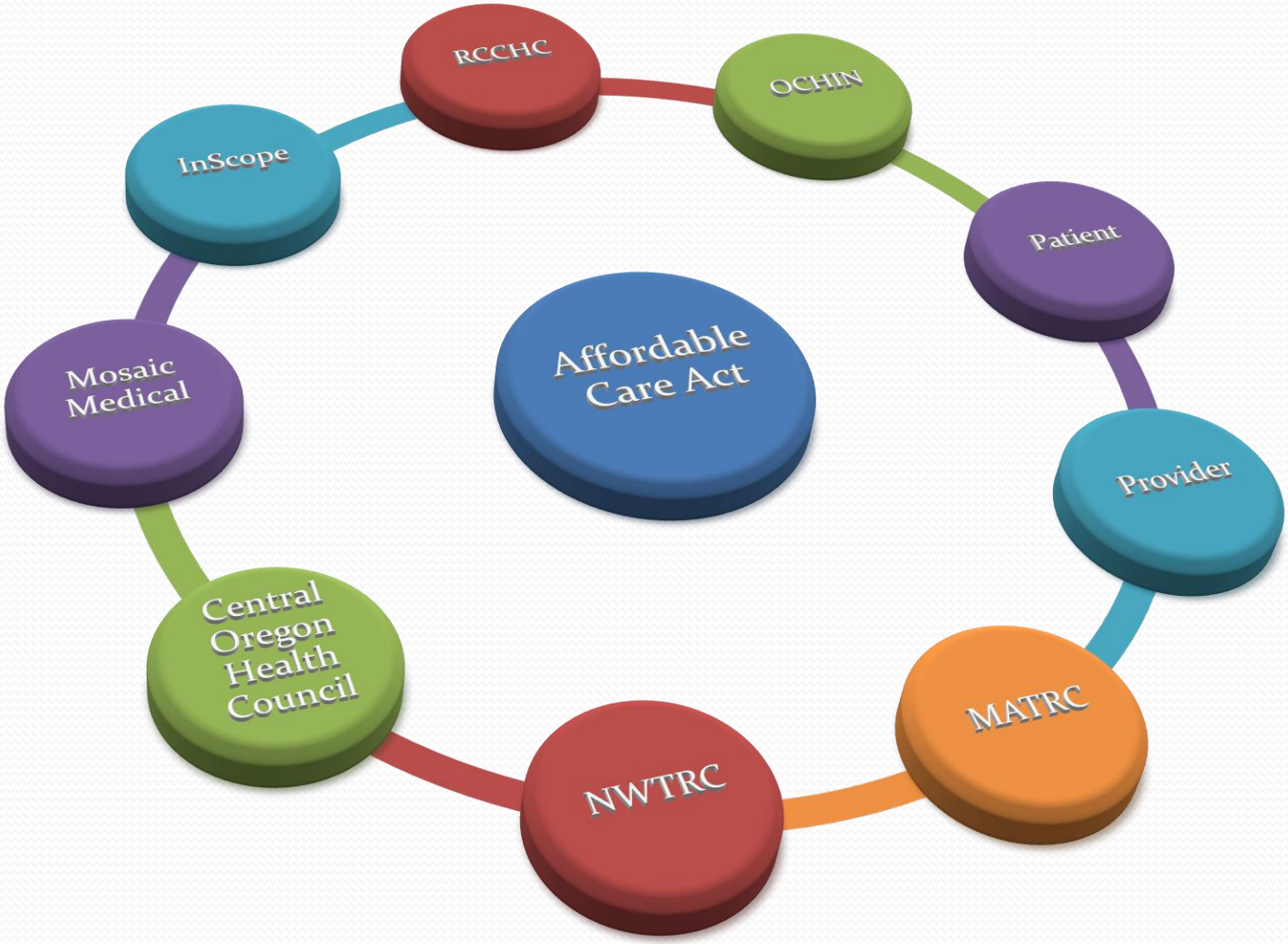
- Total Hospital and ED Charges for 24 months after RPM was $483,024. The cost of caring for these patients had significantly decreased

The RCCHC study demonstrates that Remote Patient Monitoring influences patient behavior which leads to persistent health benefits and cost containment

Central Oregon Telehealth Network

Funded thru HRSA Office for the Advancement of Telehealth

Awarded:
August 14, 2013
3 year funding



Program Results

- Over the 3 years the grant supported 426 unduplicated patients
- A total of 455 patients considering duplicates on program at different points of time
- Key lessons learned were gathered on standing conference calls in all areas of the program: administrative, clinical, process, and technology.
- **BLOG:** http://cotnexperience.blogspot.com

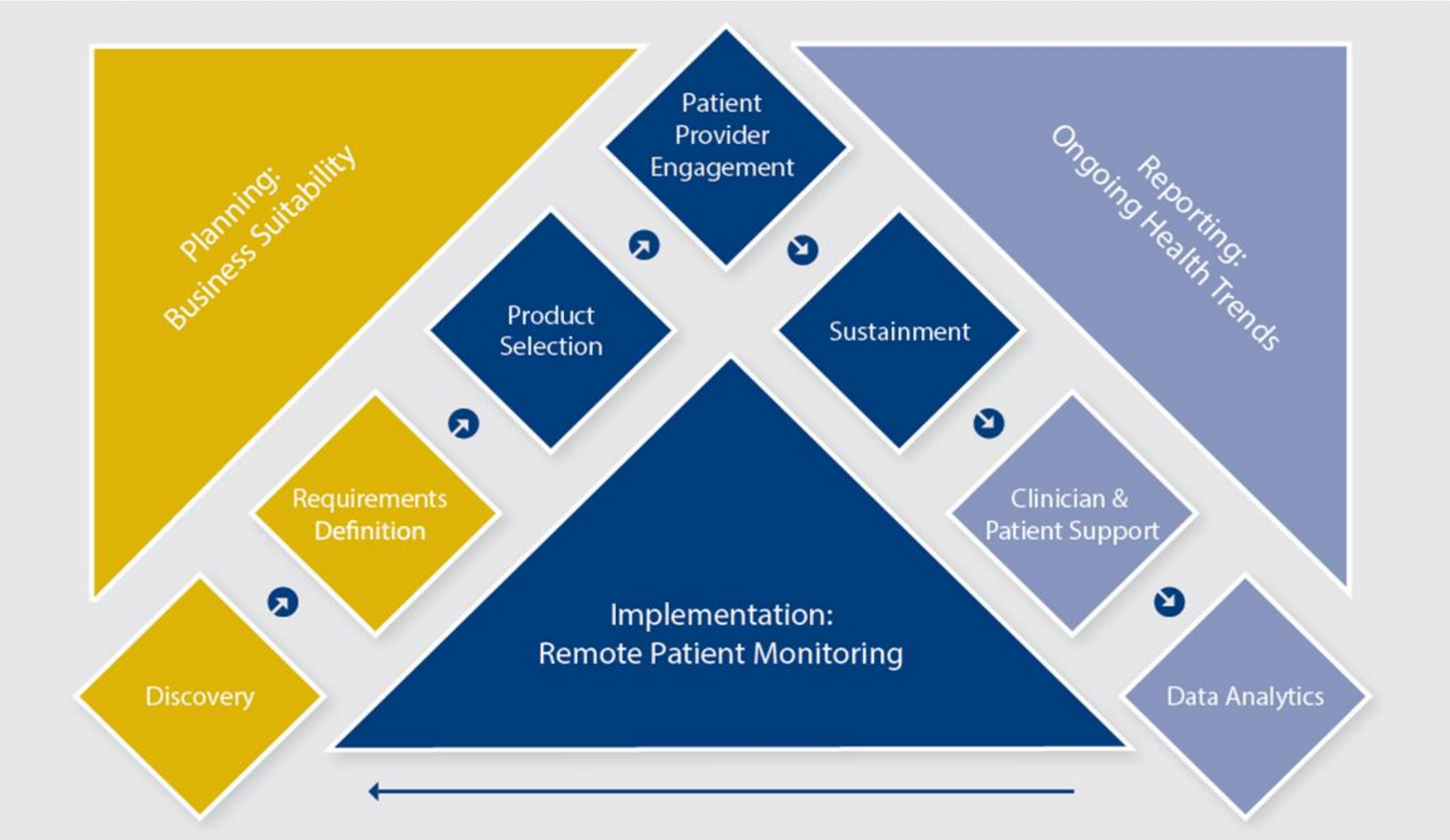
RPM Tool Kit

Broad Components

- Administration
- ROI & sustainability plan
- EHR integration
- Staffing
- Training
- Communication
- Outcomes
- Devices

Link - https://www.telehealthresourcecenter.org/training

The Methodology



Valuable Outcomes

PATIENT

Fewer ED/Offices visits

Fewer hospital re-admissions

Improves overall health and quality of life

Improves provider relationship

Reduces out-of-pocket expenses

Increases accountability and healthcare IQ

Ease of use

PROVIDER

Real time access to patient health data

Better view into patient's lifestyle

Supports meaningful use

Lower healthcare cost

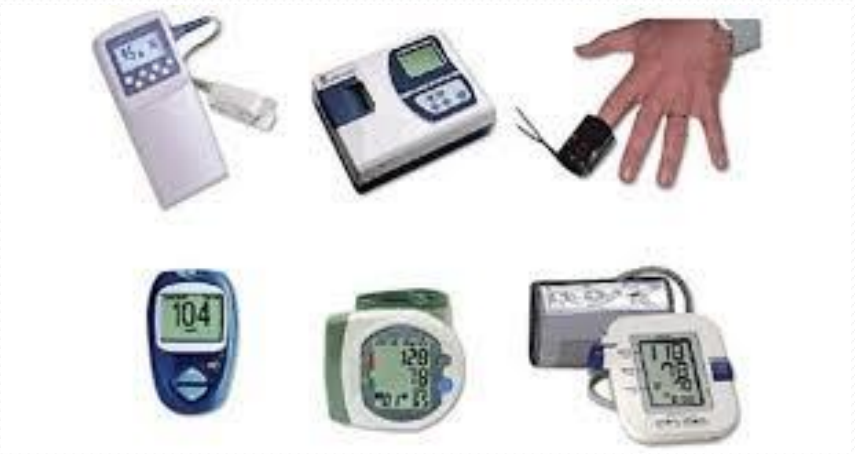
Improves treatment plans and outcomes

Supports Patient Center Medical Home and NCQA accreditation

Telehealth Today at RCCHC

Current State

- 90 patient capacity
- Expand capacity/utilization
- Expansion to outlying sites
- Used in conjunction with CCM billing
- Multi-channel referrals



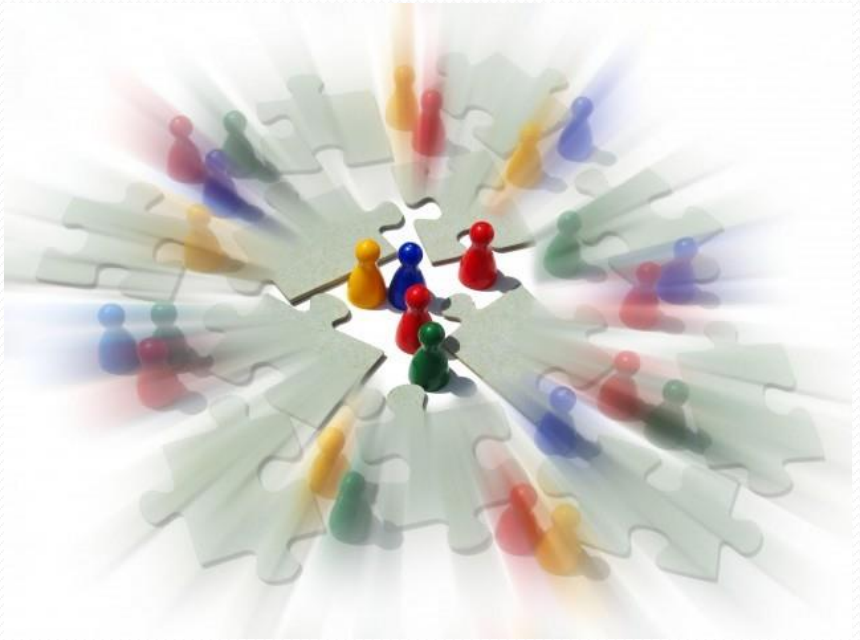
- Equipment vendor RFP
- Understand/Streamline billing processes
- Improve referral template
- Improve communication/coordination with hospital-based program
- Maintain provider engagement

Reimbursement

- 99091 unbundling in 2018 by CMS
- Requirements
  - F2F
  - Consent
  - Time
- Co-pay
- 3rd party varies

Patient Identification

- Disease state
  - Patient registries
  - New diagnoses
- Risk score
  - ED utilization
  - Charlson Comorbidity Index
  - Impactability
- ED/IP discharges
- Referrals



How We Got Here and Where to Go

- Keep moving forward
- Fail forward

…(If you know your) WHY you can bear any HOW.
-*Viktor E. Frankl*

Establishing Innovative Partnerships