



# mI SMART



## Technology in Care Management

Dr. Jennifer A Mallow PhD

Advanced Practice Registered Nurse  
Nurse Researcher

&

Brian K. Mallow PMP

Microsoft Certified: Solutions Developer,  
Database Administrator, Systems  
Engineer



# Plan



W Introduction

W Background

W Case Study/Demo

W Next Steps

W Answer Questions



# Jen Mallow



- ✦ Registered Nurse
- ✦ Primary Care Provider
- ✦ PhD in Nursing Research
- ✦ The focus of my research is the development and use of technology to improve outcomes and access for individuals living in rural areas with multiple chronic conditions
- ✦ Leader of an interdisciplinary team that includes: a Developer/DBA/Programmer, Computer Scientists, Nurses, Physicians, Health Sciences Researchers, Pharmacists, a Social Worker, Clinic Managers, a Statistician, and an Epidemiologist.



# Brian Mallow



- ❖ Formal education as an Artist and an IT professional
- ❖ Over 20 years in IT
- ❖ Extensive experience building and managing complex technology systems
- ❖ 2.5 million points of contact and nearly 17,000 users. (BIG DATA)
- ❖ Experience in migrating clinical data into researchable databases
- ❖ Responsible for building the mI SMART platform



# Background



- ❖ Free care does not always lead to improved outcomes
- ❖ Attendance at free clinic appointments
- ❖ Geographic distance to clinic
- ❖ Multiple Chronic Conditions
- ❖ Current Healthcare systems
- ❖ Technology Interventions



# Use of Technology



- ✦ Examples of how technology has been used to improve outcomes include:
  - ✦ Patients seeking out health information via the web
  - ✦ Electronic access to services such as appointment scheduling and medication refills
  - ✦ Communication with providers using telehealth devices or secure messaging
  - ✦ Video conferencing
  - ✦ Engaging with telehealth interventions and remote monitoring devices to manage chronic conditions
  - ✦ Use of a health record to store personal health information
  - ✦ Seeking support and education through social networks



# Outcomes



- ✦ Each of these technology-driven interventions has been found to:
  - ✦ Improve outcomes
  - ✦ Be cost effective



# WV Go First





# Case Study





# mI SMART





# At Home



|             |
|-------------|
| 116.0/95.0  |
| 142.0/91.0  |
| 116.0/75.0  |
| 130.0/89.0  |
| 116.0/88.0  |
| 89.0/79.0   |
| 109.0/92.0  |
| 120.0/99.0  |
| 121.0/90.0  |
| 118.0/105.0 |
| 131.0/76.0  |
| 135.0/100.0 |
| 138.0/105.0 |
| 113.0/91.0  |
| 112.0/77.0  |
| 96.0/83.0   |
| 121.0/103.0 |
| 117.0/84.0  |
| 113.0/101.0 |
| 122.0/75.0  |
| 156.0/117.0 |
| 135.0/133.0 |
| 114.0/79.0  |
| 131.0/98.0  |
| 102.0/66.0  |
| 128.0/70.0  |
| 243.0/128.0 |
| 129.0/85.0  |
| 121.0/98.0  |





# Our Aims



- ❖ To improve the quality, safety, and efficiency of care while reducing disparities
- ❖ Personalize and Individualize care plans while engaging patients and families in their care
- ❖ Improve care coordination
- ❖ Improve the ability of practices to meet and report meaningful use criteria



# Potential for the Future



- ❖ Prevention of re-hospitalization post discharge.
- ❖ Prevention of inappropriate use of Emergency Department resources.
- ❖ Connect specialty care providers to primary care providers to decrease burden.
- ❖ Use in other populations such as adolescents with Type 1 diabetes.
- ❖ Use in weight loss and fitness space.



# Next Direction



- ✦ Integration into existing EHRs
- ✦ Payment for services provided using technology
- ✦ Expand our capability to receive data from monitoring devices without dependence on specific third party vendors.
- ✦ Ideas on how to expand low-cost rural connectivity.



# Questions

