




## Acknowledgment

This program was made possible by CMS Grant #1C1CMS330971-01-00 from the Department of Health and Human Services, Centers for Medicare & Medicaid Services.

The contents of this presentation are solely the responsibility of the authors and have not been approved by the Department of Health and Human Services, Centers for Medicare & Medicaid Services.

**REMSEA**  
**Regional Emergency Medical Services Authority**

- REMSEA Paramedic Ambulance Service
  - 42 ambulances & 400 employees serving 6,000 square miles
  - Nationally accredited medical dispatch center, regional medical disaster coordination center, special events coverage
- Care Flight Medical Helicopter Service
  - Three aircraft serving 40,000 square miles
- Extensive Investment in Community Service Programs
  - Largest community & professional medical training center in NV
  - Specialized TEMS team supporting 3 local SWAT agencies
  - \$39 million in community benefit in 2012
- Private non-profit serving Northern Nevada for 27 years
  - Nationally acclaimed for high performance, quality, innovation

 COMMUNITY HEALTH PROGRAMS

Responding to our community's healthcare needs. 3

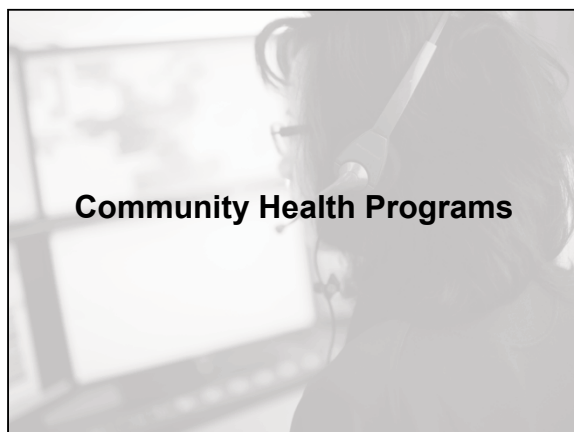
## Health Care Innovation Award (HCIA)

- Funded by Affordable Care Act
- REMSEA awarded largest EMS grant, only urban EMS grant, only Nevada-based grants (in round one)
- Community Health Programs improve access to appropriate levels of quality care and reduce overall health care costs
- New health care personnel:
  - Community Health Paramedics
  - Nurse Navigators



**CMS Innovation Center**  
"New models of care and payment that continuously improve health and healthcare for all Americans"

Responding to our community's healthcare needs. 4



## Ambulance Transport Alternatives

- Advanced assessment by field personnel of 9-1-1 patients facilitating Alternative Pathways of Care including transport to:
  - Urgent Care Centers
  - Clinics/Medical Groups
  - Community Triage Center
  - Mental Health Hospital



Responding to our community's healthcare needs. 6

## Community Paramedicine

Specially-trained Community Health Paramedics provide in-home services to improve the transition from hospital to home, including:

- o Medical care plan adherence
- o Medication reconciliation
- o Point of care lab tests
- o Personal health literacy



Responding to our community's healthcare needs. 7

## Community Paramedicine

Current protocols/programs:

- o CHF
- o COPD
- o S/P MI
- o Evaluate & Refer
- o Hot Spotter

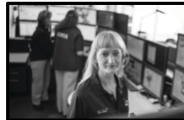


Responding to our community's healthcare needs. 8

## Nurse Health Line 858-1000

Registered Nurses provide 24/7 medical guidance & triage patients to appropriate health care or community service:

- o Protocol-driven Assessment & Care Guidance
  - o Emergency Care Nurse System
- o Recommended Level of Care
  - On-line Directory of Services
- o 24-hour Phone Follow-up



Responding to our community's healthcare needs. 9

## Nurse Health Line 858-1000

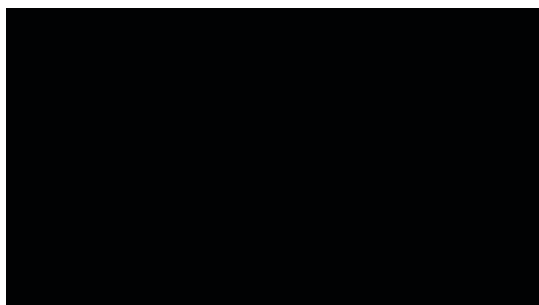
Two Ways to Access a Nurse Navigator:

- o Non-emergency number: 858-1000
- o Omega Protocol via 9-1-1 System

INSERT VIDEO



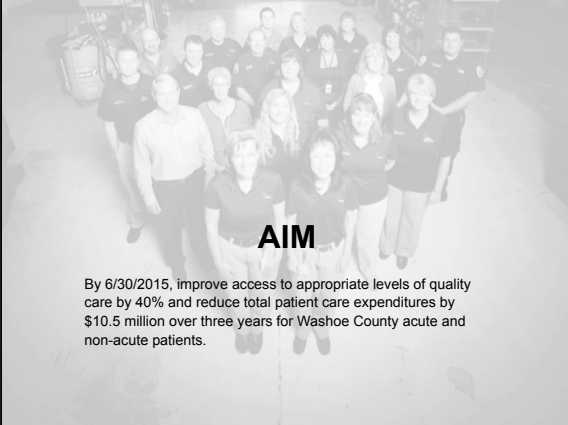
Responding to our community's healthcare needs. 10



Responding to our community's healthcare needs. 11

## Partners Critical to Success

Health Care	Community	Data/Evaluation	Implementation
<ul style="list-style-type: none"> <li>• Northern Nevada Medical Center</li> <li>• Renown Health</li> <li>• Saint Mary's Reg Medical Center</li> <li>• Urgent Care Centers, Clinics, Medical Groups</li> <li>• WestCare Community Triage Center</li> <li>• NNAMHS* &amp; WestHills</li> <li>• HAWC &amp; Hopes FQHC</li> </ul>	<ul style="list-style-type: none"> <li>• State EMS Office</li> <li>• State Health Officer</li> <li>• Washoe County Health District</li> <li>• Senior &amp; Community Groups</li> <li>• Reno Fire Department</li> <li>• Sparks Fire Department</li> <li>• Truckee Meadows Fire Protection District</li> </ul>	<ul style="list-style-type: none"> <li>• Federal CMS Innovation Center</li> <li>• University of Nevada, Reno – School of Community Health Sciences</li> <li>• Nevada Center for Health Statistics &amp; Informatics</li> <li>• RTI International – Independent Evaluator</li> <li>• Health Insight – Readmission Data</li> </ul>	<ul style="list-style-type: none"> <li>• First Watch – Automated Data Triggers / Reports</li> <li>• KPS3 – Community Outreach / Marketing</li> <li>• Priority Solutions – Emergency Care Nurse System/Low Code</li> <li>• ZOLL – Community Paramedic EMR</li> <li>• True Simple – Performance Improvement</li> </ul>




## AIM

By 6/30/2015, improve access to appropriate levels of quality care by 40% and reduce total patient care expenditures by \$10.5 million over three years for Washoe County acute and non-acute patients.

## Community Health Paramedics


- **Jake Beck, NREMT-P**  
Clinical Development Coordinator
- **Patrick Reuther, BGS, NREMT-P**  
Clinical Development & Data Coordinator
- **Dominic Polimeni, NREMT-P**
- **Ryan Ramsdell, NREMT-P**
- **Katrina Travis, NREMT-P**
- **Justin Butcher, NREMT-P**
- **Jordan Carter, NREMT-P**
- **Sabrina Peterman, NREMT-P**



Responding to our community's healthcare needs. 14

## Nurse Navigators

- **Lisa Lee, RN**  
Nurse Navigator  
Clinical Development Coordinator
- **Laurie Chenoweth, RN**  
Nurse Navigator
- **Hyun Chin, RN**  
Nurse Navigator
- **Gloria Connolly, RN**  
Nurse Navigator
- **Shari Glas, RN**  
Nurse Navigator
- **June Hardy, RN**  
Nurse Navigator
- **Denise Krakowski, RN**  
Nurse Navigator
- **Suzanne Thun, RN**  
Nurse Navigator
- **Diane Wicklund, RN**  
Nurse Navigator




Responding to our community's healthcare needs. 15

## Community Health Programs

- **Brenda Staffan, BA**  
Project Director
- **Brad Lee, MD, JD, MBA**  
Medical Director
- **Don Vonarx, BS**  
IT Support
- **Melissa Krall, LSW**  
Community Outreach Coordinator
- **Debi Kubiak**  
Administrative Assistant
- **Elaine Messerli, RN, BA**  
Clinical Operations Manager
- **Lisa Lee, RN**  
Nurse Navigator  
Clinical Development Coordinator
- **Jake Beck, NREMT-P**  
Community Health Paramedic  
Clinical Development Coordinator
- **Patrick Reuther, BGS, NREMT-P**  
Community Health Paramedic  
Clinical Development & Data Coordinator


**Executive Committee:** Jim Gubbels, CEO; Pam Boe, CFO, Chris Watanabe, Vice President, Business Services; Bonnie Drinkwater, Esq., Compliance, Klark Staffan, CAO.



Responding to our community's healthcare needs. 16

## Measures Committee

- **Trudy Larson, MD**  
Professor and Director, School of Community Health Sciences  
Professor, Department of Pediatrics, University of Nevada School of Medicine, University of Nevada, Reno
- **Wei Yang, MD, PhD**  
Professor of Epidemiology & Biostatistics, School of Community Health Sciences  
Director, Nevada Center for Health Statistics & Informatics  
University of Nevada, Reno
- **Chris Dugan, BS**  
Graduate Research Assistant, School of Community Health Sciences  
University of Nevada, Reno
- **Brad Lee, MD, JD, MBA**  
Medical Director  
REMSA
- **Brenda Staffan, BA**  
Project Director  
REMSA
- **Elaine Messerli, RN, BA**  
Clinical Operations Manager  
REMSA
- **Patrick Reuther, BGS, NREMT-P**  
Clinical Development & Data Coordinator  
REMSA
- **Chris Watanabe, BA**  
Vice President, Business Services  
REMSA



Responding to our community's healthcare needs. 17

## TRIPLE AIM

Improve the quality and experience of care


**Better Care**

Improve the health of populations

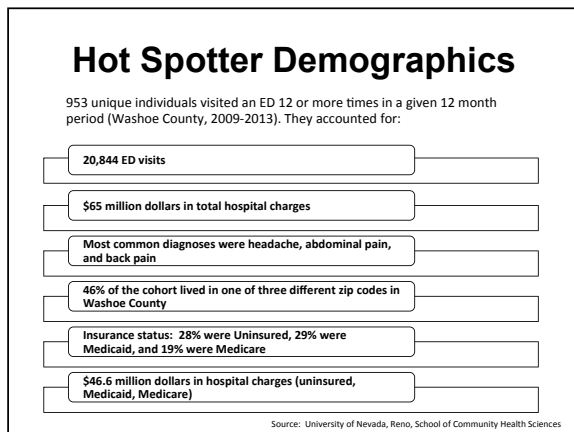
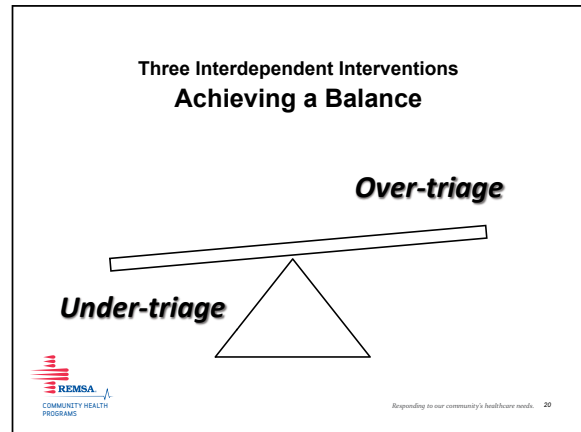
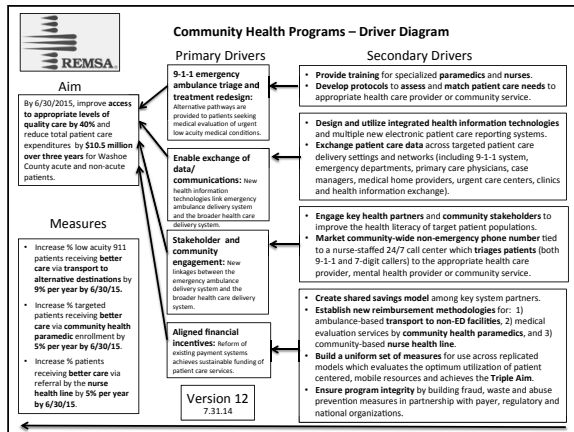
**Better Health**

**Lower Costs**

Reduce per capita cost



Source: Berwick, DM, et al; The Triple Aim: Core, Health & Cost; May/June 2008; Health Affairs  
Responding to our community's healthcare needs. 18



**Science of Improvement**

	Measurement for Research	Measurement for Improvement
<b>Purpose</b>	Discover new knowledge	Bring new knowledge into daily practice
<b>Tests</b>	One large "blind" test	Many sequential, observable tests
<b>Biases</b>	Control as many biases as possible	Stabilize the biases from test to test
<b>Data</b>	Gather as much data as possible, "just in case"	Gather "just enough" data to learn, complete another cycle
<b>Duration</b>	Can take long periods of time to obtain results	"Small tests of significant" changes accelerates rate of improvement

Source: Institute of Healthcare Improvement

REMSA  
COMMUNITY HEALTH PROGRAMS

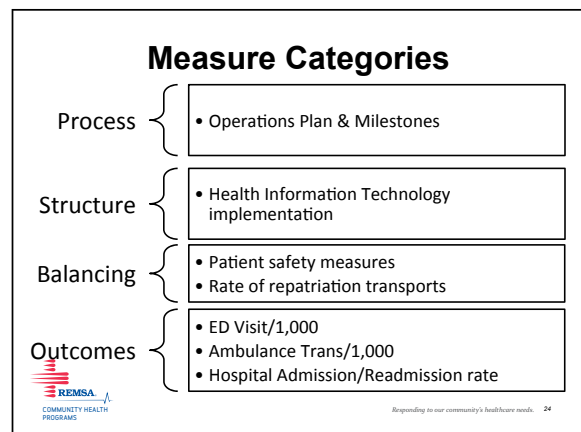
*Responding to our community's healthcare needs.*

**Measurement & Evaluation**

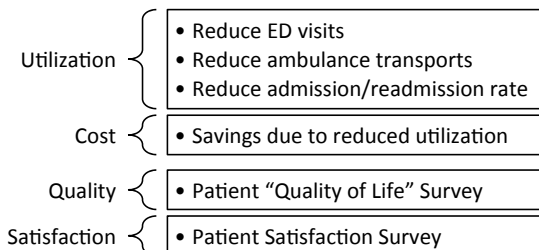
- Self-Monitoring Plan
  - ✓ 28 measures reported to CMS quarterly
- Measures Categories
  - ✓ **Process, Structure, Balancing, Outcomes**
- Outcome Domains
  - ✓ **Utilization, Cost, Quality, Satisfaction**
- Operations Plan
  - ✓ Quarterly milestones

REMSA  
COMMUNITY HEALTH PROGRAMS

*Responding to our community's healthcare needs.*



## Outcome Domains



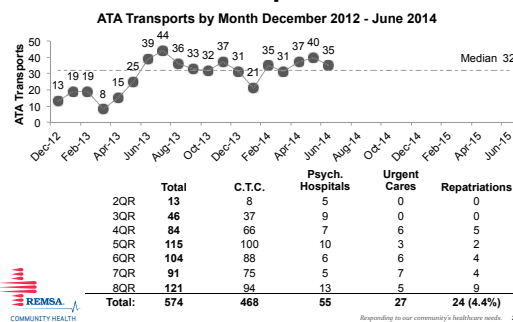
Responding to our community's healthcare needs. 25

## Preliminary Outcomes

*The preliminary outcomes presented herein are very early estimates and reflect a best faith effort to present an accurate description of our progress in improving the quality and experience of care, improving the health of populations and reducing the overall cost of care. All savings estimates are calculated based upon average charges from data provided by the Nevada Center for Health Statistics & Informatics at UNR. We continue to test and confirm the methodology and the data sources. These estimates will be updated as new data is identified and our methodologies are validated.*

## Preliminary Outcomes Ambulance Transport Alternatives

## Ambulance Transport Alternatives



## Ambulance Transport Alternatives

### Since December 2012

- 550 ED visits avoided
- 55 ambulance transports avoided
- 4.4% repatriation rate
- Positive feedback; No adverse outcomes
- 14 (soon 16) participating receiving facilities
- Two (2) federally qualified health care clinics (HAWC, HOPES)
- Achieving 97% advanced assessments in field



Responding to our community's healthcare needs. 29

## Ambulance Transport Alternatives

### Lessons Learned

- A safe and reliable way to help patients receive the right care at lower cost
- Factors: patient consent, facility open, facility consent to accept patient, facility accept insurance

### Estimate of savings to date

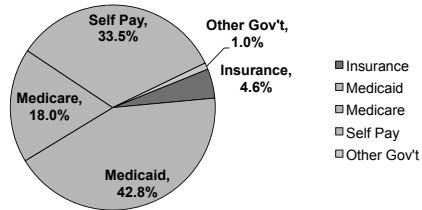
- \$2 million (avg. charges)
- \$700,000 (avg. payments)



Responding to our community's healthcare needs. 30

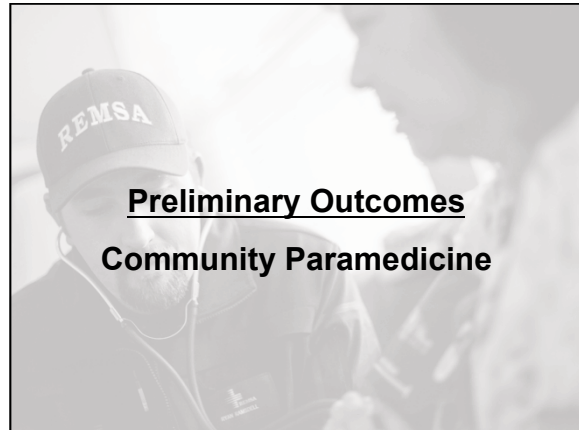
## Ambulance Transport Alternatives

Payer Sources for Patients Transported to  
Alternative Destinations Jan 2014 - June 2014  
n = 194



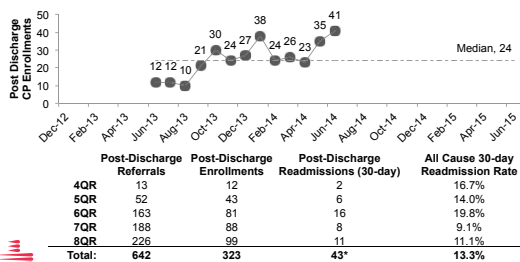
Responding to our community's healthcare needs. 37

## Preliminary Outcomes Community Paramedicine



## Community Paramedicine

CP Post Discharge Enrollments by Month June 2013 – June 2014



Responding to our community's healthcare needs. 33

## Community Paramedicine

### Since June 2013

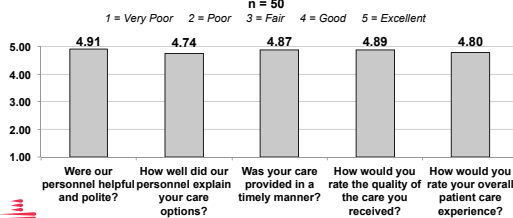
- 28 readmissions avoided
- 97 ED visits avoided
- 109 ambulance transports avoided
- Positive patient satisfaction results
- 444 total patients enrolled
- 2,024 total in-home visits



Responding to our community's healthcare needs. 34

## Community Paramedicine Patient Satisfaction

Surveys Returned for Patients Enrolled with Community Paramedics  
June 2013 – June 2014  
n = 50



Responding to our community's healthcare needs. 35

## Community Paramedicine

### Lessons Learned

- CHPs can safely avoid hospital readmissions with high quality and satisfaction metrics
- Preliminary results show CHPs are having a positive effect on patient "quality of life"
- No reported adverse outcomes



Responding to our community's healthcare needs. 36

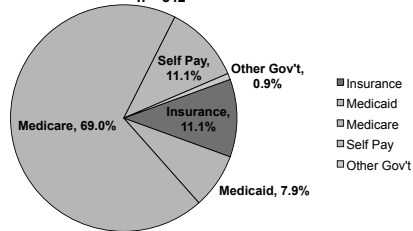
### Estimate of savings to date

- \$1.6 million (avg. charges)
- \$560,000 (avg. payments)

## Community Paramedicine

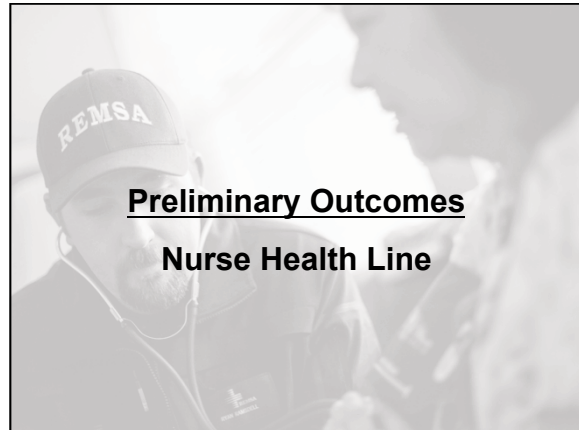
Payer Sources for Patients Enrolled With Community Paramedics Jan 2014 - June 2014

n = 342



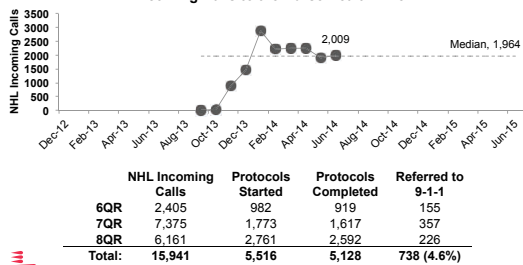
Responding to our community's healthcare needs. 37

## Preliminary Outcomes Nurse Health Line



## Nurse Health Line

Incoming Calls to the Nurse Health Line



Responding to our community's healthcare needs. 38

## Nurse Health Line

### Since October 2013

- 1,149 ED visits avoided (7.2% of incoming calls)
- 190 ambulance transports avoided (1.2% of incoming calls)
- 738 calls transferred to 9-1-1 (4.6% 9-1-1 transfer rate)
- No reported adverse outcomes
- 15,941 calls
  - Avg. 2,000 NHL calls/month (nearly matches original annual goal)
  - Avg. 4,500 9-1-1 calls/month
- 5,128 ECNS protocols completed (32.1% of incoming calls)



## Nurse Health Line

### Lessons Learned

- Extraordinary community demand across broad spectrum (50%+ health care provider referral rate)
- Independent call review was highly complimentary and determined overall protocol compliance was very high



Responding to our community's healthcare needs. 41

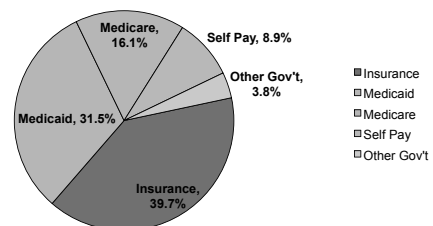
### Estimate of savings to date

- \$4.3 million (avg. charges)
- \$1.5 million (avg. payments)

## Nurse Health Line

Payer Sources for NHL Callers in June 2014

n = 1,186



Responding to our community's healthcare needs. 42

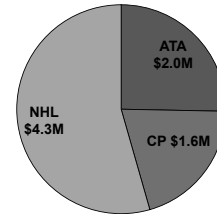
## **REMSA Community Health Programs Summary**

- Program to date (12/12 – 6/14):
- 1,795 ED Visits Avoided
    - 70% of All Service Requests
  - 354 Ambulance Transports Avoided
    - 15,941 NHL Calls
    - Nearing 50% of All 9-1-1 Requests
  - 28 Readmissions Avoided
    - 2,024 CP Visits
    - 3.5% of 9-1-1 Requests
  - 574 Alt Transports
    - 1% of All 9-1-1 Transports



*Responding to our community's healthcare needs.* 43

## **Total Savings in Charges \$7.9 Million**



*Responding to our community's healthcare needs.* 44

## **Additional Program Drivers**

### **Community Outreach**

#### ***Engage key health partners & community stakeholders***

- Marketing includes television, Radio, Internet Banner Ads, Website
  - 14 million+ total gross impressions program to date
  - English and Spanish distribution
- Convert stakeholders to partners
  - 100+ community presentations program to date
- Identified and targeted underserved populations
  - Direct mail NHL magnets to targeted zip codes
  - Under-served/uninsured populations are highlighted in preliminary outcomes



*Responding to our community's healthcare needs.* 46

### **Health Information Technology**

#### ***New care pathways leveraged by information technology***

- Enable exchange of data/communications to link EMS with health care delivery system
  - Push to *HealthIE Nevada*; future push to EPIC via HL7 CDA
- Integrate health information technologies
  - *LowCode/ECNS* integrated with *Endpoints* Directory of Services, CAD & EMD
  - *ZOLL* Electronic Medical Record to be integrated with *ZOLL* billing system
- Build data collection, compilation and analysis capabilities
  - Self-monitoring Plan (daily, weekly, monthly, quarterly reporting)
  - *First Watch* automated data monitors and triggers



*Responding to our community's healthcare needs.* 47

### **Aligned Financial Incentives**

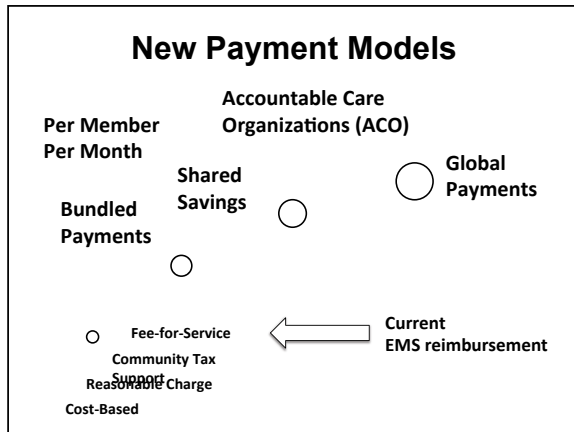
#### ***Achieve sustainable funding, scale, replicate, spread***

- **Achieve Sustainability**
  - Build evidence-base
  - Secure contracts with new sources of revenue
  - Reform government payment systems
- **Explore Shared Savings Model**
- **Ensure Program Integrity**
- **Scale, Replicate & Spread**
  - Uniform measurement set
  - Expand scale of REMSA interventions, replicate to other communities



*Responding to our community's healthcare needs.* 48






### New Payment Models

**REMSA's *Community Health Programs* will:**

1. Improve 24/7 access to assessment, triage, referral
  - Navigate patients to appropriate levels of care
2. Improve patient satisfaction scores & quality of care
3. Lower the total cost of care
  - Reduce ED visits, amb transports, all-cause admissions, readmissions

**Goal – Develop new payment models to preserve and sustain savings gained**



Responding to our community's healthcare needs. 98



### Acknowledgment

This program was made possible by CMS Grant #1C1CMS330971-01-00 from the Department of Health and Human Services, Centers for Medicare & Medicaid Services.

The contents of this presentation are solely the responsibility of the authors and have not been approved by the Department of Health and Human Services, Centers for Medicare & Medicaid Services.