



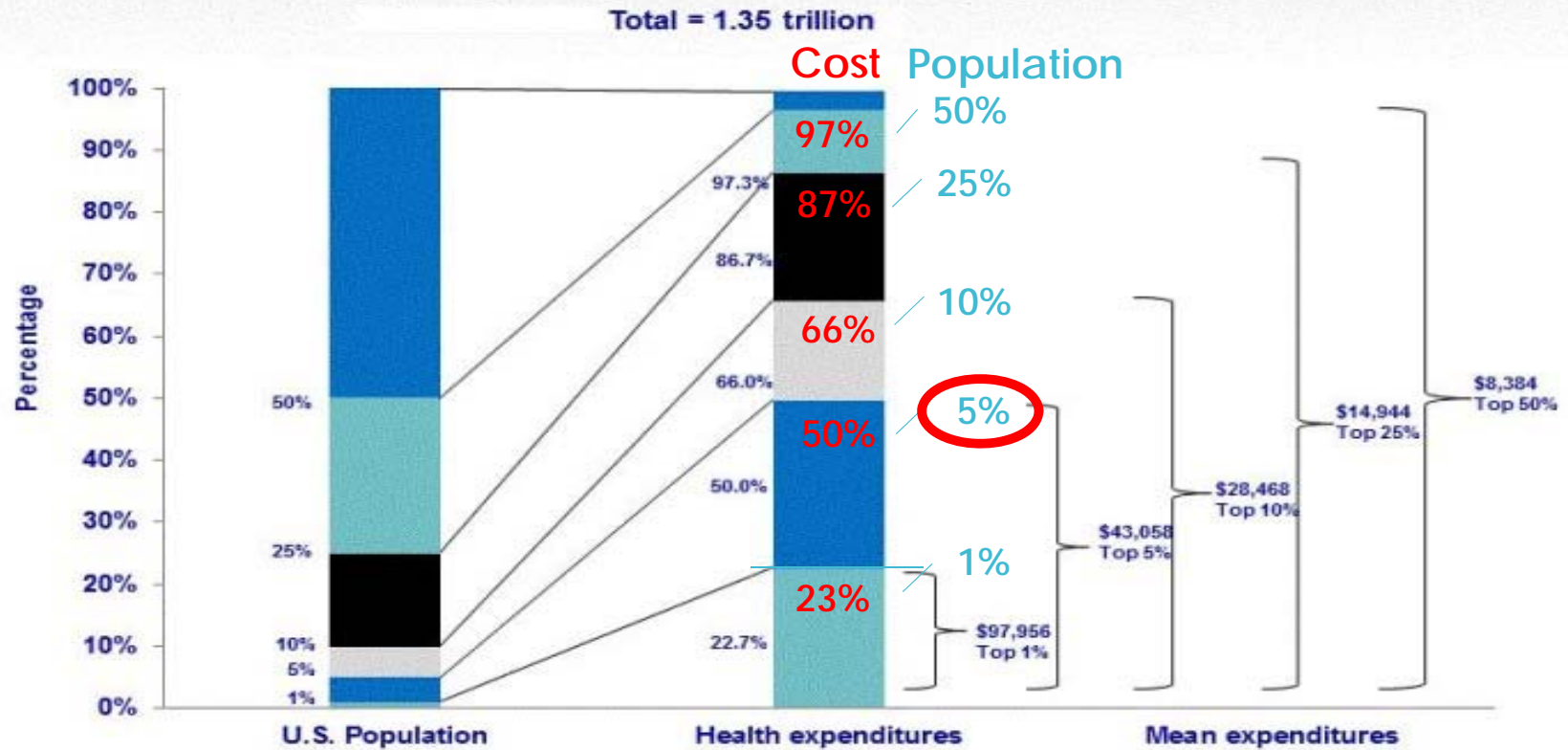
**Duxlink Tele-Hospital & InterReality** (On-Site & Online) **Care™**  
**A Platform & Service for High-Risk Care**

Michael Shen, MD, FACC, CMO

**3/2020**



**Figure 1. Distribution of health expenditures for the U.S. population by magnitude of expenditure and mean expenditures, 2012**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2012

## RS: A TYPICAL CASE OF PATIENT WITH COMPLEX CHRONIC DISEASE

- 68 y.o. male with Hypertension, Diabetes, Hyperchol, Smoking
- Coronary disease, heart attack, s/p Stent and bypass surgery, Heart Pumping Function (EF) 25-30%, Defibrillator, 2 Mechanic valves, chronic renal disease, COPD, on O<sub>2</sub> 24x7
- Hospital Admissions/Readmissions 6x Early 2016 over 5 months.
- Primary care at home assessing severe SOB:
  - PCP: No Pneumonia
  - Ready to send to hospital

## CASE RS:

Last admission 7/2016, intubated, ICU/Hospital x 15 days

- “In the emergency department shortly after putting patient on the stretcher, his eyes rolled back and became unresponsive. She (the nurse) started chest compression, but felt a jolt from patient's automatic implantable cardiac defibrillator”.
- “Patient had a pulse after being shock but was poorly responsive and was promptly intubated by Emergency Room physician without any difficulty. Electrocardiogram strip prior to her incident showed ventricular tachycardia”.
- **Hospice / SNF? Home visit**

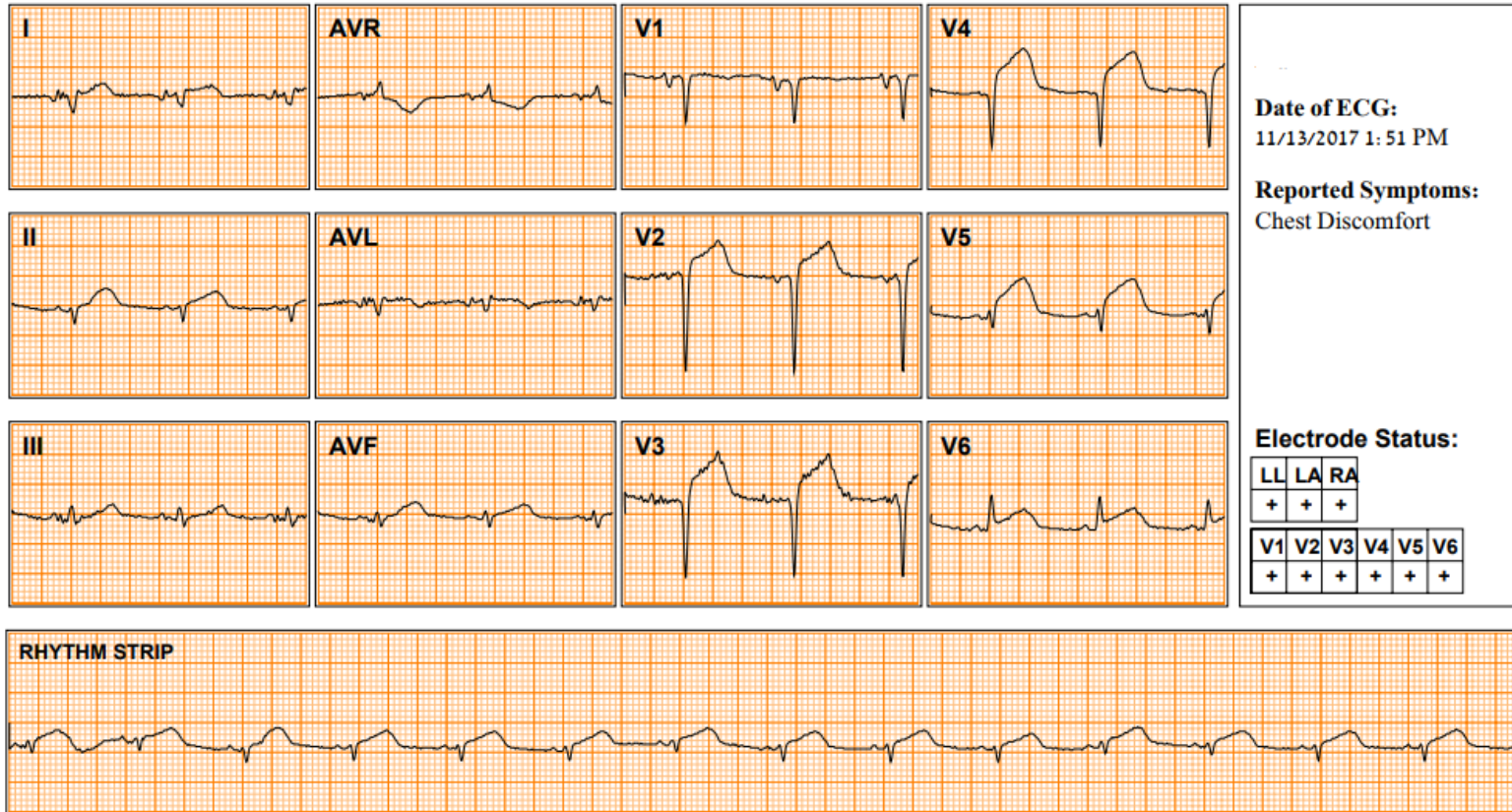
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## CASE EB:

- A female patient with PMH of HTN and hyperchol experiencing heart burn intermittently for a few days
- Increasing difficulties on physical activities/walking
- ECG available at a Facility performed and sent to a cardiologist for interpretation

# CASE EB:



# THE UPCOMING PERFECT STORM OF THE US HEALTHCARE

- Shifting Fee-for-Service (F4S) to Pay-for-Performance (P4P)

## CMS “Value-Based Care Payment Continuum”

By 2022, CMS is aiming for ~85% Value-based Care

- Population Health Management Transforming  
From **In-Patient based “Sick Care”**  
to **Out-Patient based Health Care**



- Hospital Revenue:

- AHA 6/2019: In-Patient vs. Out-Patient  
\$498B (51%) vs. \$472B (49%)



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# DUXLINK HEALTH

A Florida based integrated technology and multi-specialty High-Risk Care network.

The Mission: “Bringing Hospital Level of Care to Patients Anytime and Anywhere™



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# DUXLINK HIGH-RISK CARE PLATFORM

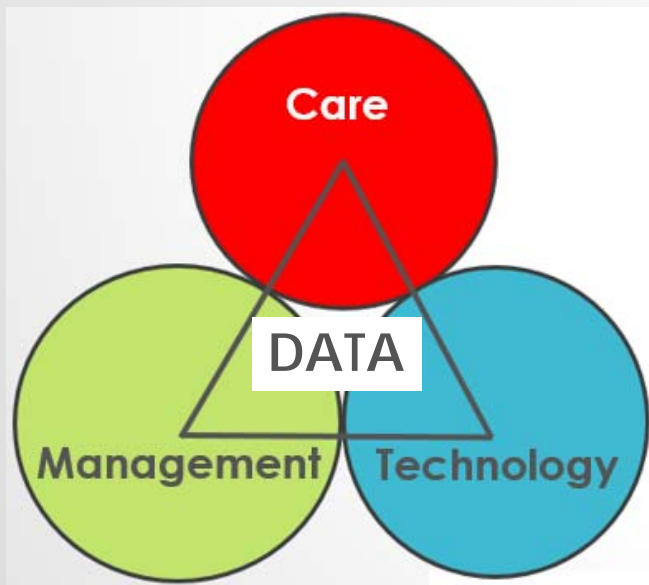
New Scalable Solution Services	
Post-Acute Continuum	<p>Hospitals      Clinics      Rehab Facilities      Homecare      ACO/HMO/MSO/Insurance      Self-Care at Home</p>
Super EMR Mobile Apps	
Devices & Monitoring 24/7	
Hospital Protocols & Management	
AI/Analytics on Delivery	

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# TELE-HOSPITAL: INTERREALITY (ON-SITE & ON-LINE) CARE™ TRIANGLE SOLUTION FOR POST-ACUTE CARE

*"Bringing Hospital Level of Care to Patients Anytime & Anywhere™"*

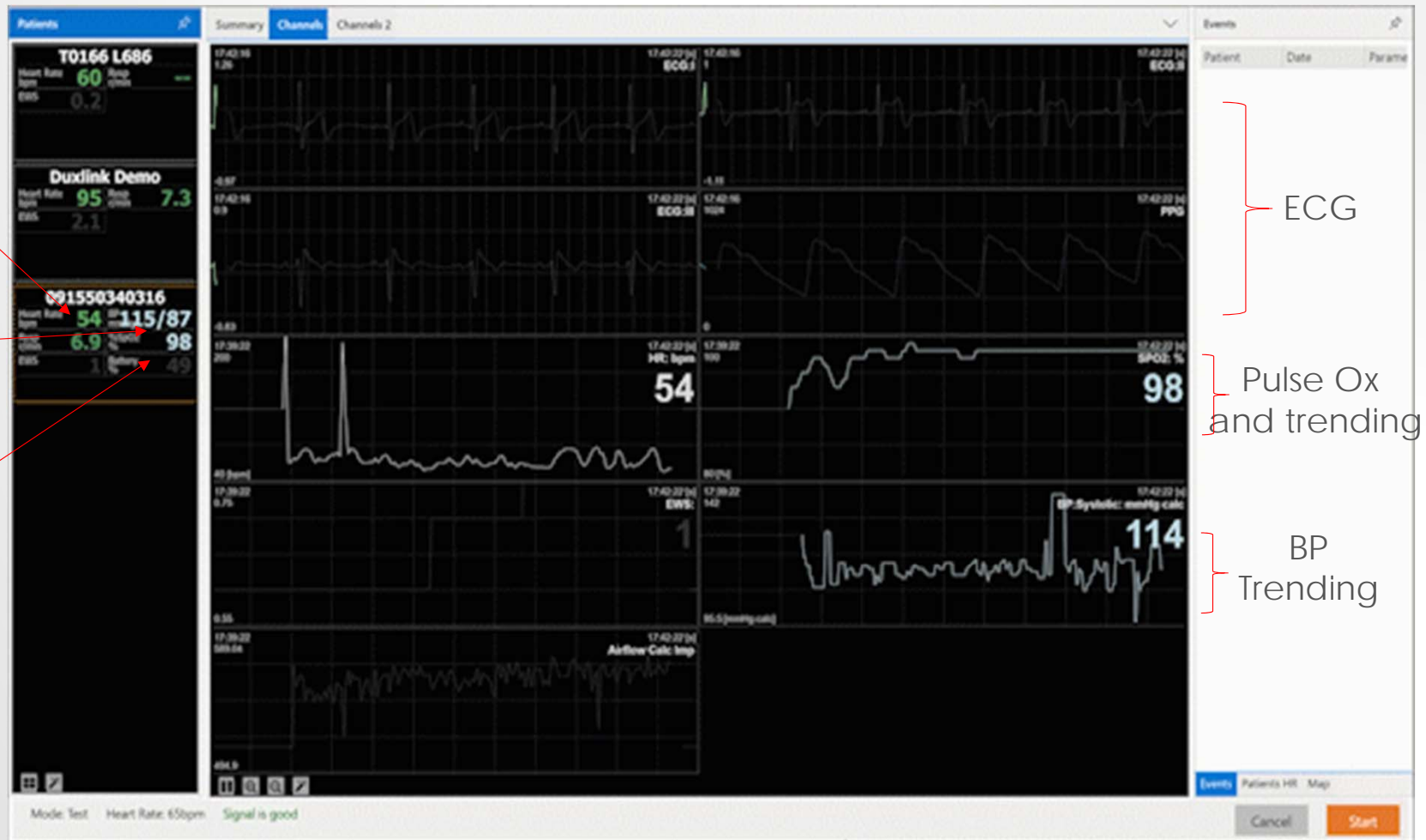


1. Hospital Equipment/Monitoring
2. Hospital Specialists
3. Hospital Services
4. Hospital Protocols
5. Hospital Implementation
6. Hospital Engagement with Patient
7. Super-Hospital EMR and Templates
8. Virtual Hospital Communication: VR/AR
9. Process Integration Beyond Hospital
10. Hospital Data Analytics/Action on both Quality/Cost

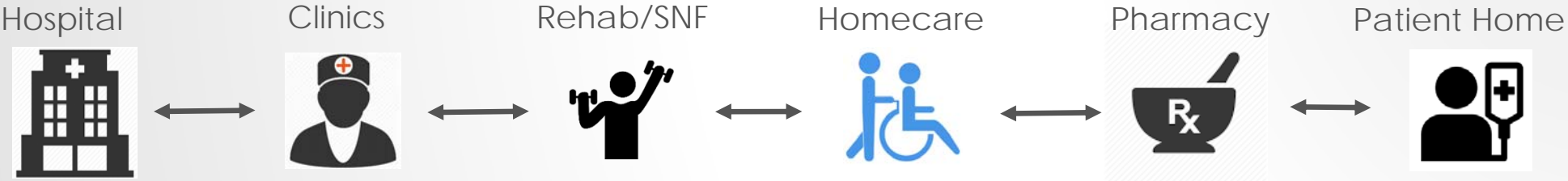
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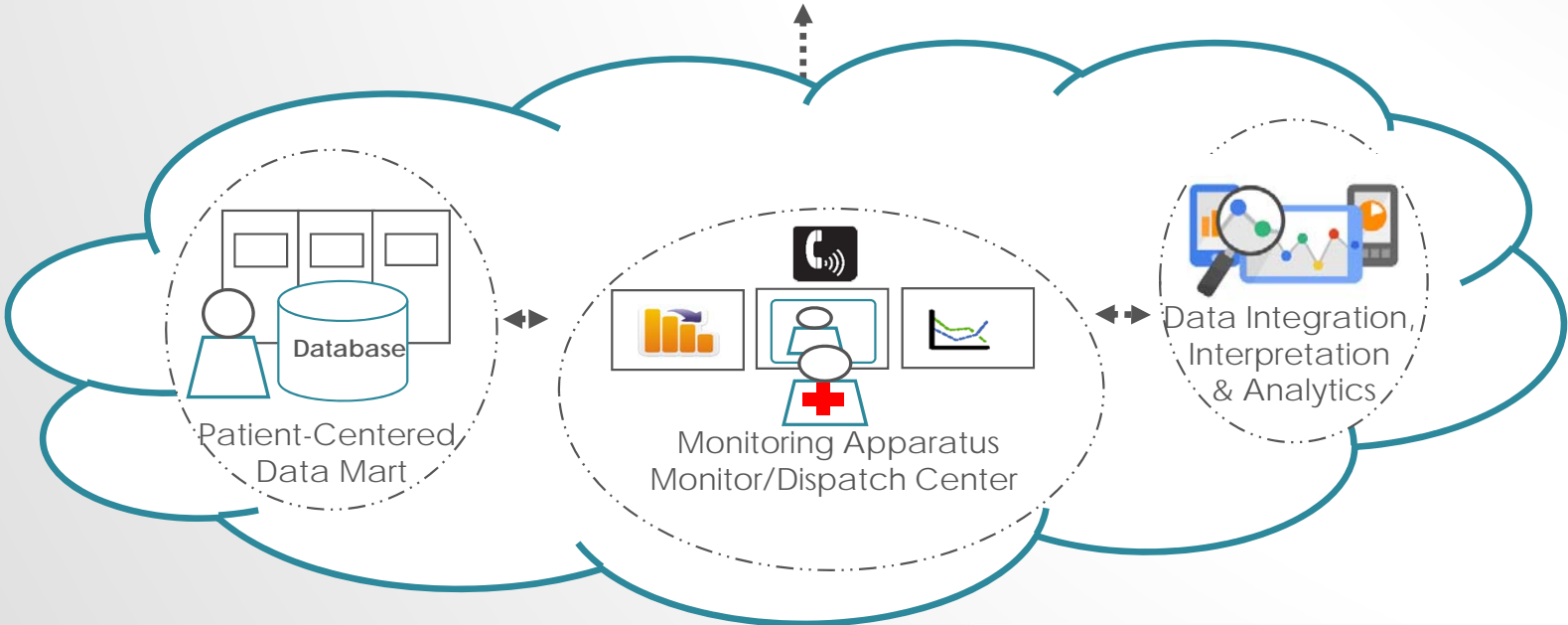
# Real-Time Hospital Level of Wireless Telemetry Monitoring



# HOSPITAL CARE PROCESS BEYOND: ACUTE TO POST-ACUTE



Integrated Technology, Communication & Care Process



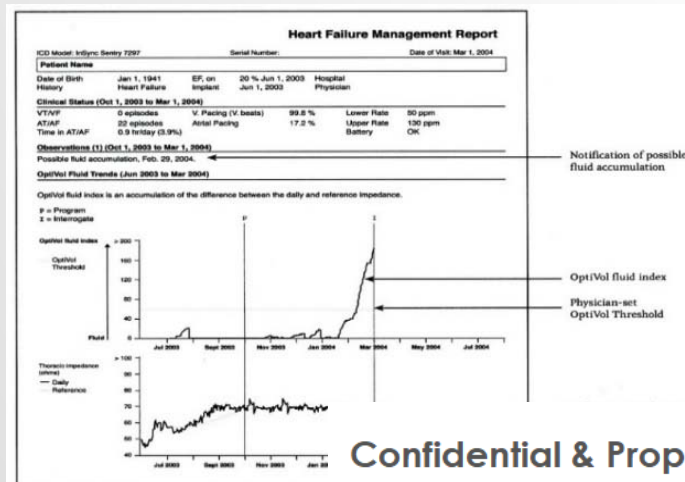
# CURRENT CARE

5 Months 2016

- Admissions: 3
- Readmission 30-day: 3
- Total Hospital stays:
  - 25 days regular floor
  - 10 days ICU
- Costs: \$90,430 in 5 months

# TELE-HOSPITAL™

- On-Site:
  - NP 1-3x/month
  - Labs weekly
- On-Line:
  - Monitoring: 1-5x/wk
  - Device: BP, POx, Weight, ICD
- Readmission/Admission: No x 40 months
- Cost Savings **9/2016 through 1/2020: \$651,096**



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## CASE EB:

- Medications was given and the patient was transferred to a local hospital
- Immediate intervention was performed and 100% of LAD was stented successfully
- Interventional Cardiologist: “With any more delay, the outcome will be very different”
- The patient was discharged 4 days later
- Doing well now with near complete recovery



Elaine Bloom watches Sarah Vega-Pina, RN, apply an EKG to Jose Furmusa. Bloom is CEO of Plaza Health Systems and decided to add telemetry machines so that bedside EKGs could be administered to patients. The machine ended up saving her life. A nurse practitioner suggested she try it because of recurring heartburn. It turned out she was having a heart attack.



Duxlink system and device connecting to 24/7 service

## MEMORIAL - DUXLINK INTERREALITY CARE (N=112)

	Memorial Only	Memorial + <b>Duxlink</b>
<b>Services</b>	<b>Hospital &amp; Clinic</b>	<b>Hospital &amp; Clinic + On-Site &amp; On-Line</b>
<b>Total Admissions:</b>	<b>270</b>	<b>37 (86% ↓)</b>
<b>Total Readmissions:</b>	<b>151</b>	<b>38 (75% ↓)</b>
<b>Days of Admissions: Hospital/ICU</b>	<b>2,283/194</b>	<b>401(82%↓)/54 (72%↓)</b>
<b>Total Admission/Readmissions Cost</b>	<b>\$ 6,058,019</b>	<b>\$ 1,196,905 (80%↓)</b>

**Total Saving \$4.86M!**

Osman K, Dumitru I, Douglas F, DeMuth K, Shen M, Perryman R: EHJ 2018; 39: 225-226



# OUTCOME: MSO HIGH-RISK CARE N=29

	Conventional Care (Baseline)	Interreality Care 24/7 (Intervention)
# Admission/ER: CHF/COPD	49	2* (96%↓)
# Admission/ER: Total	180	11* (94%↓)
Normalized Admit/ER	1.3 ± 0.9	0.5 ± 0.9*
Hospital length of stay	9.2 ± 8.9	1.6 ± 3.3*
Total Cost	\$1,357,285	\$317,689*

\* P<0.00001

**Total Saving ~\$1.4M!**

Patino MC, Kouz I, Sanfilippo N, DeMuth KE, Shen M. JACC 2020

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# COLLABORATED BATTLE OF CARE

## HMO/MSO/ACO

- **Police Network**
  - Effective Primary Care
  - Efficient Prevention
- **Focus on 95% Population**
  - Population Health
  - Manage general diseases



## Duxlink

- **“SWAT (Special Weapons And Tactics)”**
  - Special Weapons of Technology
  - Tactics/Process: to control Admissions
- **Focus on top 5% High-Risk/Cost Pts**
  - On-Site Investigation/Complex Care
  - Work along with PCP Police Network



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# 2019 NATIONAL RECOGNITIONS

Technology

Clinical

## Duxlink Tele hospital

*recognized by* **CIOReview** *magazine as*

10 MOST PROMISING  
**HEALTHCARE**  
TECH STARTUPS - 2019

*An annual listing of 10 technology startups that are  
spearheading innovation and transforming the industry*

**insights**care  
Healthcare Solution Hub

## Duxlink Health

*is recognized by Insights Care magazine in*



*An annual listing of The 10 Best Performing Telehealth Solution Providers  
that are changing the landscape of the healthcare industry with advanced  
products and services*

  
**Pooja M. Bansal**  
Editor-in-Chief  
Signature



“Tele-medicine is a branch of medicine today. But, medicine will become a branch of tele-medicine in the future. As the telecommunication has shifted the paradigm from the phone booth of the service-based model to the cell phone of the customer-based model, the demand of patient care at anytime and anywhere will make telemedicine to be the mainstream of healthcare, beyond the hospital walls”

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<https://redcap.nova.edu/redcap/surveys/?s=CHETXK48Y4>

If the link above does not work, try scanning the QR code:

