

# Hospital and EMS Partnership to Achieve the Triple Aim



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## What we're gonna do...

- What's all this about the "Triple Aim"?
  - And why does it matter?
- The "How"
  - Insight into the new "EMS" model
    - How it fits into the Triple Aim framework
- And....
  - Learn why careful medical documentation is important...



## Chart Entry Part 1...

- “The patient is tearful and crying constantly. She also appears to be depressed.”
- “The patient has been depressed since she started seeing me in 1993.”
- “The patient had waffles for breakfast and anorexia for lunch.”



## Attention Please!

- \$9,255 per capita health expenditures!!
  - Due in large part to quantity-based payments



<http://kaiserhealthnews.org/news/health-costs-inflation-cms-report/>



The IHI Triple Aim is a framework developed by the Institute for Healthcare Improvement that describes an approach to optimizing health system performance.

It is IHI's belief that new designs must be developed to simultaneously pursue three dimensions, which we call the "Triple Aim":

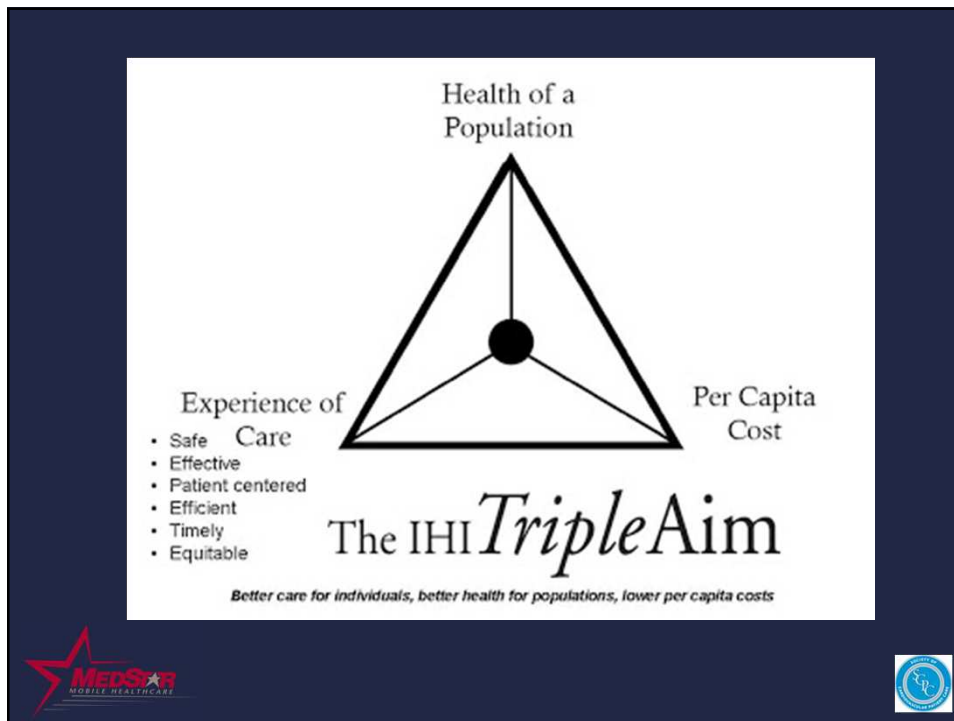
- Improving the patient experience of care (including quality and satisfaction);
- Improving the health of populations; and
- Reducing the per capita cost of health care.



**Est. 2007**



<http://www.ihl.org/Engage/Initiatives/TripleAim/pages/default.aspx>



**The National Quality Strategy** was first published in March 2011 as the National Strategy for Quality Improvement in Health Care, and *is led by the Agency for Healthcare Research and Quality on behalf of the U.S. Department of Health and Human Services (HHS).*

Mandated by the Patient Protection and Affordable Care Act, the National Quality Strategy was developed through a transparent and collaborative process with input from a range of stakeholders. More than 300 groups, organizations, and individuals, representing all sectors of the health care industry and the general public, provided comments.

*Based on this input, the National Quality Strategy established a set of three overarching aims that builds on the Institute for Healthcare Improvement's Triple Aim<sup>®</sup>, supported by six priorities that address the most common health concerns that Americans face.* To align with National Quality Strategy, stakeholders can use nine levers to align their core business or organizational functions to drive improvement on the aims and priorities.



<http://www.ahrq.gov/workingforquality/about.htm>



## Aims

The National Quality Strategy pursues three broad aims. These aims will be used to guide and assess local, State, and national efforts to improve health and the quality of health care.



- **Better Care:** Improve the overall quality, by making health care more patient-centered, reliable, accessible, and safe.
- **Healthy People/Healthy Communities:** Improve the health of the U.S. population by supporting proven interventions to address behavioral, social and, environmental determinants of health in addition to delivering higher-quality care.
- **Affordable Care:** Reduce the cost of quality health care for individuals, families, employers, and government.



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Innovation Center Home > Innovation Models > Specialty Practitioner

## Specialty Practitioner Payment Model Opportunities: General Information

Share

The Center for Medicare & Medicaid Innovation (CMS Innovation Center) is interested in testing new models of care that will focus on specific diseases, patient populations, and specialty practitioners in the outpatient setting to incentivize improved care, better health, and lower costs. Through section 1115A of the Social Security Act, as enacted by section 3021 of the Affordable Care Act, the Innovation Center is authorized to test innovative payment and service delivery models that have the potential to reduce program expenditures while preserving or enhancing the quality of care for Medicare, Medicaid, and Children's Health Insurance Program (CHIP) beneficiaries.

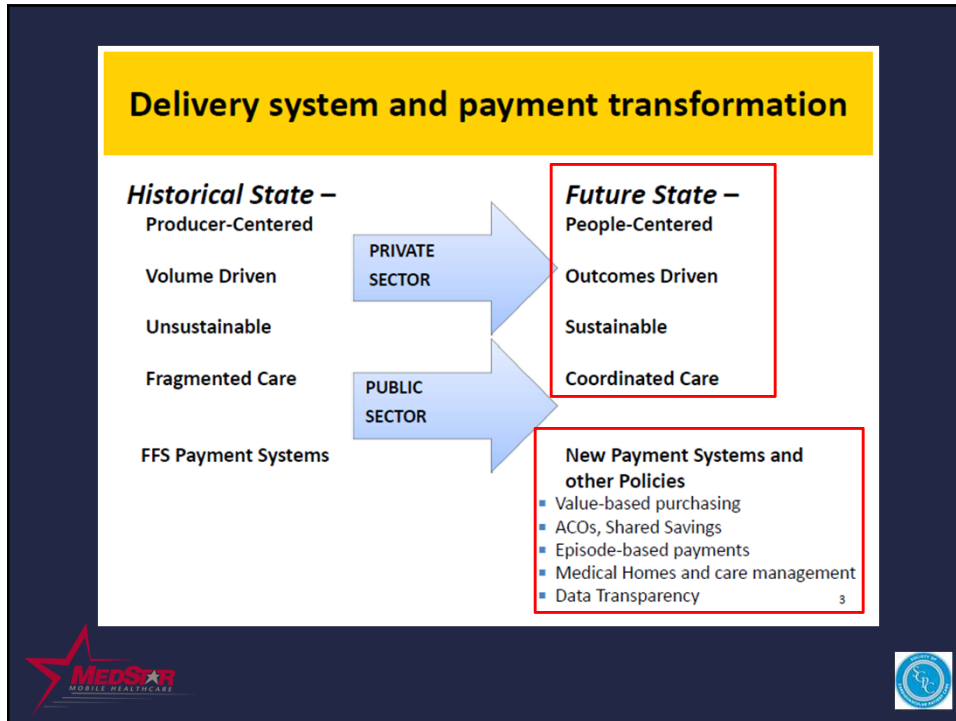


### Center for Medicare and Medicaid Innovation Center Update



*Dr. Patrick Conway, M.D., MSc*  
*CMS Chief Medical Officer and Deputy Administrator for Innovation and Quality*  
*Director, Center for Medicare and Medicaid innovation*  
*Director, Center for Clinical Standards and Quality*  
*November 10, 2014*





### HHS Pledges To Quicken Pace Toward Quality-Based Medicare Payments

By Jordan Rau January 26, 2015

The Obama administration Monday announced a goal of accelerating changes to Medicare so that **within four years, half of the program’s traditional spending will go to doctors, hospitals *and other providers*** that coordinate their patient care, stressing quality and frugality.

The announcement by Health and Human Services Secretary Sylvia Burwell is intended to spur efforts *to supplant Medicare’s traditional fee-for-service medicine, in which doctors, hospitals and **other medical providers** are paid for each case or service without regard to how the patient fares.* Since the passage of the federal health law in 2010, the administration has been designing new programs and underwriting experiments to come up with alternate payment models.

*“For the first time we’re actually going to set clear goals and establish a clear timeline for moving from volume to value in the Medicare system,”* Burwell said

<http://kaiserhealthnews.org/news/hhs-pledges-to-quicken-pace-toward-quality-based-medicare-payments/>

## Healthcare Economics 101

- Shift from FFS to Shared Risk
  - ACOs
  - “Population” based payments
  - Focus on driving down utilization
    - Right patient
    - Right time
    - Right setting
    - Right cost





## Healthcare Economics 101

- CMS bonuses & penalties
  - Readmissions (up to 3%)
    - MI, CHF, Pneumonia, COPD, Hips & knees
  - Value-Based Purchasing (up to 1.5%)
    - Clinical process of care (12)
    - Patient experience (8)
    - Healthcare outcomes (5)
    - **Efficiency (1)**





Hospital	City	State	Value-Based Purchasing 2013	Value-Based Purchasing 2014	Value-Based Purchasing 2015	HAC - 2015
Medical Center Of Arlington	Arlington	TX	0.18%	0.22%	-0.18%	Y
BUMC	Dallas	TX	-0.11%	0.22%	-0.38%	Y
Dallas Medical Center	Dallas	TX	-0.49%	-0.24%	-0.72%	N
Medical City Dallas Hospital	Dallas	TX	0.19%	0.41%	-0.08%	Y
Texas Health - Dallas	Dallas	TX	-0.22%	0.01%	-0.44%	Y
Jps Health Network	Fort Worth	TX	0.07%	-0.19%	-0.56%	Y
Plaza - Fort Worth	Fort Worth	TX	0.35%	0.06%	-0.45%	N

## Medicare Spending per Beneficiary

Hospital Name	Period		Avg Spending Per Episode (Hospital)	Avg Spending Per Episode (State)	Avg Spending Per Episode (Nation)
THR - Fort Worth	1 to 3 days Prior to Index Hospital Admission	Outpatient	\$157	\$117	\$113
THR - Fort Worth	1 through 30 days After Discharge from Index Hospital Admission	Skilled Nursing Facility	\$3,453	\$2,729	\$3,087
BAYLOR ALL SAINTS MEDICAL CENTER AT FORT WORTH	1 through 30 days After Discharge from Index Hospital Admission	Outpatient	\$892	\$667	\$664
JPS HEALTH NETWORK	1 through 30 days After Discharge from Index Hospital Admission	Home Health Agency	\$546	\$864	\$759
JPS HEALTH NETWORK	1 through 30 days After Discharge from Index Hospital Admission	Inpatient	\$5,116	\$3,861	\$2,602



Spectrum Health is saving money by avoiding preventable readmissions. ***“We understand where the world is going,” Dickinson says. “We’re not going to be able to continue to make money in acute care by hospitalizing people. We need to shift to take care of them.”***

Michael Dickinson,  
Medical Director for Heart Failure  
and Heart Transplant at the  
Frederik Meijer Heart & Vascular Institute



[http://www.hhnmag.com/display/HHN-news-article.dhtml?dcrPath=/templatedata/HF\\_Common/NewsArticle/data/HHN/Magazine/2013/May/0513HHN\\_Feature\\_clinical](http://www.hhnmag.com/display/HHN-news-article.dhtml?dcrPath=/templatedata/HF_Common/NewsArticle/data/HHN/Magazine/2013/May/0513HHN_Feature_clinical)



## Chart Entry Part 2...

- “The skin was moist and dry.”
- “The patient was alert and unresponsive.”
- “I saw your patient today, who is still under our car for physical therapy.”
- “Skin: Somewhat pale, but present.”
- “The patient has two teenage children, but no other abnormalities.”



## “EMS?”

- 9-1-1 safety net access for non-emergent healthcare
  - 35.6% of 9-1-1 requests
    - 12 months Priority 3 calls (44,567 (P3) / 124,925 (Total))
- Reasons people use emergency services
  - *To see if they needed to*
  - *It’s what we’ve taught them to do*
  - *Because their doctors tell them to*
  - *It’s the only option*
- 37 million house calls/year
  - 30% of these patients don’t go with us to the hospital



2012 NASEMSO Report



## “EMS?”

### 10-year % change of overall call volume...

Call Type	% Increase
<b>Interfacility</b>	<b>11.32%</b>
<b>Sick Person</b>	<b>10.37%</b>
Falls	5.87%
Unc Person	5.20%
Assault	4.21%
Convulsions	4.16%
Psyc.	3.76%

Call Type	% Decrease
Abd Pain	2.83%
Traum Inj.	3.71%
Chest Pain	7.97%
<b>MVA</b>	<b>10.38%</b>
<b>Breath. Prob.</b>	<b>10.48%</b>





# Unscheduled Medical Services!



## Conundrum...

- Misaligned Incentives
  - Only paid to transport
  - “EMS” is a *transportation* benefit
  - NOT a medical benefit

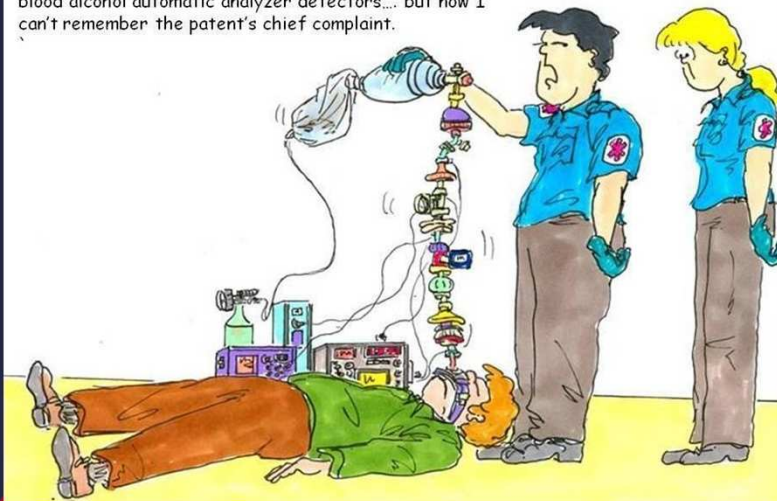


## Question??

- How has “EMS” done in proving value?



I've secured the impedance threshold, end-tidal volume, dead space, vesicular excursion, rate/depth, tic tack dispenser, ketone, alkalotic/acidotic, alveolar elastic, and blood alcohol automatic analyzer detectors... but now I can't remember the patient's chief complaint.



## Police transport a good bet for shooting victims, study finds

By Tom Avril, Inquirer Staff Writer  
January 8, 2014

The Philadelphia Inquirer PHILLY.COM

From 2003 through 2007, gunshot victims taken to city trauma centers by police survived two-thirds of the time - the same rate as those taken by emergency medical squads, according to a new University of Pennsylvania study.

**When the researchers took into account the severity of the injuries, the survival rate for those taken to emergency rooms by police was slightly better than for those delivered by ambulance.**

When the authors considered all cases of "penetrating trauma" - gunshots and stabbings - the survival rates for those taken by police and those going by ambulance were statistically equivalent.



[http://articles.philly.com/2014-01-09/news/45995105\\_1\\_gunshot-victims-police-car-shooting-victims](http://articles.philly.com/2014-01-09/news/45995105_1_gunshot-victims-police-car-shooting-victims)



## More Advanced Emergency Care May Be Worse for Cardiac Arrest Victims: Study

*Good CPR, getting to hospital fast resulted in better outcomes than using sophisticated methods*

Steven Reinberg, HealthDay Reporter  
Nov. 24, 2014

JAMA

Advanced life support given by paramedics to cardiac arrest victims may cost lives rather than save them, researchers report.

**The best treatment might just be good CPR given by paramedics or emergency medical technicians and getting the patient to the hospital as fast as possible, the Harvard University researchers noted.**

"We find survival is longer with basic life support than advanced life support, which calls into question the widespread assumption that advanced pre-hospital care improves outcomes in cardiac arrest compared with basic life support," said study author Prachi Sanghavi, a Ph.D. student in the Harvard Program in Health Policy.



**More cardiac arrest patients treated with basic life support lived to leave the hospital than those treated with advanced life support (13 percent versus 9 percent). Also, more patients given basic life support were alive 90 days after the event than patients given advanced life support (8 percent versus 5 percent), the investigators found.**

Moreover, patients treated with basic life support were less likely to have poor mental functioning than those treated with advanced life support (22 percent versus 45 percent), the findings showed.

Dr. Michael Callahan, an emergency medicine specialist at the University of California, San Francisco, and author of an accompanying journal editorial, said these results are not surprising. Current practice is for paramedics not to waste time intubating patients or giving drugs, as these measures haven't been shown to improve outcomes.

**"We know that high-quality CPR, basic airway management and rapid defibrillation matter," he said. "There are studies that show that advanced life support doesn't matter. You don't have better survival. So, you are just doing more things and it takes more time."**



<http://www.winnipegfreepress.com/arts-and-life/life/health/more-advanced-emergency-care-may-be-worse-for-cardiac-arrest-victims-study-283768031.html>



## Our Role?

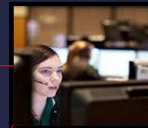
“Emergency medical services (EMS) of the future will be **community-based** health management that is **fully integrated** with the overall health care system. It will have the ability to identify and modify illness and injury risks, provide acute illness and injury care and **follow-up**, and contribute to the **treatment of chronic conditions** and **community health monitoring**. This new entity will be developed from **redistribution of existing health care resources** and will be integrated with other health care providers and public health and public safety agencies. It will **improve community health** and result in more appropriate use of acute health care resources. EMS will remain the public’s emergency medical safety net.”





## Innovative Partnerships Better Care – Reduced Cost

- Right Resource
- Right Time
- Right Patient
- Right Outcome
- Right Cost



## Mobile Integrated Healthcare

- EMS Loyalty Program
- System Abusers
- 9-1-1 Nurse Triage
- CHF/High Risk Dx Readmissions
- Observational Admission Avoidance
- Hospice Revocation Avoidance
- Home Health Partnership



### Patient Navigation vs. Primary Care



## 9-1-1 Nurse Triage

- Navigate low-acuity 9-1-1 calls to most appropriate resource
- Low acuity 9-1-1 calls (ALPHA & OMEGA)
  - Warm handoff to specially trained in-house RN
- Uses RN education and experience
  - With Clinical Decision Support software
- Referral eligibility determined by:
  - IAED Physician Board
  - Local Medical Control Authority



### Expenditure Savings Analysis (1)

### 9-1-1 Nurse Triage Program

Based on Medicare Rates

Analysis Dates: June 1, 2012 - March 31, 2015	
Number of Calls Referred:	2,791
% of Calls with Alternate Response	40.0%
% of Calls with Alternate Destination	35.7%

Category	9-1-1 Responses (5)			ED Visits (5)		
	Base	Avoided	Savings	Base	Avoided	Savings
Average Charge (1, 4)	\$1,668	1,117	\$1,863,156	\$ 904	995	\$ 899,480
Average Payment (2, 4)	\$427	1,117	\$476,959	\$ 774	995	\$ 770,130
ED Bed Hours (4)				6	995	5,970

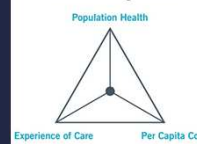
<b>Total Charge Avoidance</b>	<b>\$2,762,636</b>
<b>Total Payment Avoidance</b>	<b>\$1,247,089</b>

<b>Per Patient Enrolled</b>	<b>ECNS</b>
<b>Charge Avoidance</b>	<b>\$2,473</b>
<b>Payment Avoidance</b>	<b>\$1,116</b>

**Notes:**

1. Average ambulance charge by MedStar
2. Average Medicare payment rec'd by MedStar
3. Base expenditures derived from AHRQ reports
4. Provided by John Peter Smith Health Network
5. Result of EPAB approved change to allow locus of care to include ED visit by alternate transportation

#### The IHI Triple Aim

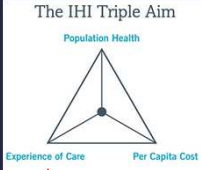


### 9-1-1 Nurse Triage Patient Experience Scores (1)

**As of February 28, 2015**

Please rate (2) the following: (N=125)		Score
The 9-1-1 call taking process		4.78
How the nurse handled call		4.76
If you feel the nurse understood your medical Issue		4.75
Your satisfaction with recommendation		4.55
The alternate transportation provided		4.45

The IHI Triple Aim



<u>Did Your Medical Issue... (N=132)</u>		
Get Better		80.5%
Stay the Same		12.8%
Get Worse		7.2%



<u>Did Speaking with the Nurse Help? (N=133)</u>		
Yes		91.7%
No		8.3%

<u>Did Disposition Save Time and Money? (N=115)</u>		
Yes		95.7%
No		4.3%

<u>Should Your Call Have Been Handled Differently? (N=133)</u>		
No		88.0%
Yes		12.0%

**Notes:**

- For callers who called 9-1-1 and received a response other than an ambulance to the emergency room.
- Rating scale 1 - 5 with 5 most satisfied.

### 9-1-1 Nurse Triage - Patient Experience Report (1)

**As of December 31, 2014**

**Selected Comments on 1-week Patient Experience Survey**

"Speaking with the nurse helped, she gave me excellent instructions."

"I loved how the nurse called a couple days later to check on how I was doing."

Thought it was fine and she only had to pay her co-pay so it saved her money and she didnt have to wait as long as she would have in the emergency room.

"Happy, really scared when I called but not scared any more when I got off the phone."

Very pleased with the call back to check on the patient

Glad to have someone knowledgeable to talk to.

"I was very satisfied and was really appreciative that she even called back to check on him."

"The dispatcher that answered the phone was very patient and helpful, I was glad there was a nurse to talk to too."

"I appreciated everyones help."

Very happy that MedStar has this program now.

"The triage nurse was very professional and handled my call very well. I don't have any complaints at all."

Just keep up the good work.

Patient felt call was handled well and mentioned it was nice to be able to talk to someone knowledgeable to help get the correct type of care.



No, everything turned out great. I didn't have to spend all that time waiting in the ER. It was good

It was handled excellent. Nurse was very knowledgeable and professional.

Thought it was done really good. Nurse and her pharmacist helped her through it.

Stated she is doing much better and liked being able to talk to a nurse and not go to ER

Thought that everything was handled well. Nurse called pt Dr who did not do stitches so nurse found a clinic and one that accepted pts insurance. Mother of pt also stated that nurse help calm her and deal with the bleeding and it was then she realized that the cut was not that bad so it was the right thing to do instead of go to the hospital.

## Mobile Integrated Healthcare Programs

- “EMS Loyalty Program” or “HUG” Patients
  - Proactive home visits
  - Educated on health care and alternate resources
  - Enrolled in available programs = PCMH
  - 10-digit access number 24/7
  - Flagged in computer-aided dispatch system
    - Co-response on 9-1-1 calls
    - Ambulance and MHP
- Non-Compliant enrollees moved to “system abuser” status
  - No home visits
  - Patient destination determined by Medical Director



## Community Health Program

- **146** graduated patients with 12 month data pre and post enrollment as of February 28, 2015...
  - During enrollment (30 – 90 days)
    - 18.6% reduction in 9-1-1 to ED use
  - Post Graduation
    - 66.8% reduction in 9-1-1 to ED use
    - 82.3% in reduction for “System Abusers”



### Expenditure Savings Analysis (1) High Utilizer Program - All Referral Sources

*Based on Medicare Rates*

Analysis Dates: **January 1, 2010 - February 28, 2015**


Number of Patients Enrolled (2): **146**

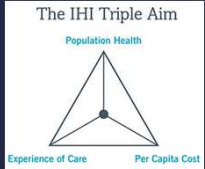
Category	9-1-1 Transports to ED		
	Base	Avoided	Savings
Ambulance Charge	\$1,668	-1893	(\$3,157,524)
Ambulance Payment (3)	\$427	-1893	(\$808,311)


Per Patient Enrolled	HUG
<b>Charge Avoidance</b>	<b>(\$21,627)</b>
<b>Payment Avoidance</b>	<b>(\$5,536)</b>

**Notes:**

- Comparison for enrolled patients based on use for 12 months prior to enrollment vs. 12 months post program graduation.
- Patients with data 12 months pre and 12 months post graduation
- Average Medicare payment rec'd by MedStar
- Base expenditures derived from AHRQ reports








### Patient Self-Assessment of Health Status (1)


As of: **2/28/2015**


	CHF Readmission Prevention			High Utilizer Group		
	Enrollment	Graduation	Change	Enrollment	Graduation	Change
<b>Sample Size</b>	<b>53</b>	<b>34</b>		<b>126</b>	<b>50</b>	
Mobility (2)	2.30	2.56	11.3%	2.35	2.62	11.5%
Self-Care (2)	2.55	2.82	10.6%	2.67	2.82	5.6%
Perform Usual Activities (2)	2.23	2.62	17.5%	2.30	2.60	13.0%
Pain and Discomfort (2)	2.25	2.65	17.8%	<b>1.94</b>	<b>2.40</b>	<b>23.7%</b>
Anxiety/Depression (2)	2.26	2.65	17.3%	<b>1.99</b>	<b>2.44</b>	<b>22.6%</b>
<b>Overall Health Status (3)</b>	<b>4.57</b>	<b>6.71</b>	<b>46.8%</b>	<b>5.30</b>	<b>6.88</b>	<b>29.8%</b>

**Notes:**

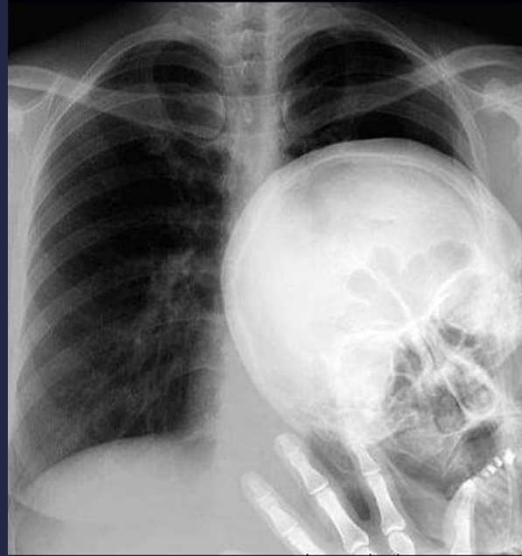
- Average scores of pre and post enrollment data from EuroQol EQ-5D-3L Assessment Questionnaire
- Score 1 - 3 with 3 most favorable
- Score 1 - 10 with 10 most favorable







## When Radiologists Take a Selfie



## Observation Admission Avoidance

- Partnership with IPA
  - ED Physician (*Case Manager*) identifies eligible patient
    - Refer to MedStar Community Health Program
    - Non-emergency contact number for episodic care given to patient
  - In-home care coordination with referring physician
  - Assure attendance at PCP follow-up next business day
  - Initiated August 1, 2012
    - 128 patients enrolled
    - 3 patient revisited prior to MD follow-up



**Expenditure Savings Analysis    Obs Admission Avoidance Program**

Analysis: [Redacted]  
 Dates: **August 1, 2012 - February 28, 2015**

Referred: 190  
 Enrolled: 128

**Obs Admits Avoided**



Category	Base	Avoided	Gross Savings	Enrollment Fees	Net Savings
Average Obs Admit Expense (1)	\$ 8,046	125	\$ 1,005,750	\$ 25,000	\$ 980,750
ED Bed Hours	23	125			2,875

Per Patient Enrolled	Obs Admit
<b>Payment Avoidance</b>	<b>\$ 7,846</b>



**Notes:**  
 1. From North Texas Specialty Physician Records

The IHI Triple Aim diagram is a triangle with a central dot. The vertices are labeled: Population Health (top), Experience of Care (bottom left), and Per Capita Cost (bottom right). Two red arrows point towards the diagram from the left and right sides.

## Framing the Hospice Issue:

- Patients & families want patients to die comfortably at home
- Hospice wants the patient to die at home
- Death is scary
- When death is near....
- 9-1-1 usually = Hospice Revocation
  - Voluntary or involuntary

## Economic Model

- Hospice benefit
  - Per diem from payer to agency
  - Agency pays hospice related care
  - LOS issues
  - Varies based on Dx
- MedPAC recommends increasing hospice benefit
- IHI recommends increase hospice enrollment



## Hospice Revocation Avoidance

- Enroll patients “at risk” for revocation
- Visit at home
  - Counsel – instruct – 10 digit access
  - “Register” patient in CAD
    - Co-respond with a “9-1-1” call
    - Help family through process
      - *While awaiting hospice RN*





## Hospice Revocation Avoidance

### Hospice Program Summary

As of February 2015

	#	%
Referrals (1)	196	
Enrolled (2)	176	
Deceased	135	76.7%
Active	21	11.9%
Improved	2	1.1%
<b>Revoked (3)</b>	<b>20</b>	<b>11.4%</b>

#### Activity:

EMS Calls	49
Transports	29
ED visits	17
Direct Admits	12



#### Notes:

- (1) Patients referred who are identified as at high risk for voluntary disenrollment, or involuntary revocation.
- (2) Difference results from referrals outside the MedStar service area, or patients who declined program enrollment.
- (3) Patients who either voluntary disenrolled, or had their hospice status revoked.



## Mobile Healthcare Programs

### Patient Experience Summary

As of July 31, 2014



	HUG	CHF	OBS	Overall Avg.
Medic Listened?	4.93	4.87	4.72	4.84
Time to answer your questions?	5.00	4.89	4.79	4.89
Overall amount of time spent with you?	5.00	4.76	4.81	4.86
Explain things in a way you could understand?	5.00	4.84	4.72	4.86
Instructions regarding medication/follow-up care?	5.00	4.79	4.77	4.85
Thoroughness of the examination?	5.00	4.84	4.72	4.86
Advice to stay healthy?	5.00	4.82	4.53	4.78
Quality of the medical care/evaluation?	5.00	4.89	4.81	4.90
Level of Compassion	5.00	4.95	4.85	4.93
Overall satisfaction	4.93	4.92	4.85	4.90
Recommend the service to others?	100.0%	100%	97.9%	99.3%



## Chart Entry Part 3...

- “The patient was to have a bowel resection, but took a job as a stock broker instead.”
- “On the second day, the knee was better, on the third day, it was gone.”
- “She is numb from her toes down.”
- “The patient has no previous history of suicides.”
- “The patient refused autopsy.”
- “Discharge status: Alive, but without my permission.”



## Home Health Issues

- Instantly penalized for readmissions
  - No more hospital referrals
  - CMS Penalties for home health coming
- High cost of night/weekend demand services
- Don't know when their patients call 911
  - Consult to < admission



# Home Health Partnership



## FOR IMMEDIATE RELEASE

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**Klarus Home Care and MedStar Mobile Healthcare Partner to  
Prevent unnecessary trips to the ER and Improve Patient Outcomes**

*Collaboration is designed to help patients of Klarus access timely care and remain in the home*

Fort Worth, TX – January 30, 2014

Klarus Home Care and MedStar Mobile Healthcare have entered into a first of its kind in the nation partnership for services to help Klarus meet patient needs for immediate medical care to help assure the patient's medical needs are met in the home environment and circumvent unnecessary trips to the emergency room. The cost of services provided by MedStar is absorbed by Klarus Home Care.

Under this unique program, a Klarus clinician can utilize MedStar's Mobile Healthcare Paramedics (MHPs) to assess a patient's needs in the home as a routine service 24 hours a day. Additionally, the addresses of Klarus Home Care patients who reside in the MedStar service area are registered in the MedStar 9-1-1 Computer Aided Dispatch (CAD) system so that, if the Klarus patient calls 9-1-1, a MedStar MHP can respond along with emergency medical service personnel. While on-scene, MedStar will provide feedback to the Klarus team to mutually determine the most appropriate resource for the patient's immediate medical needs.



**Program:** Home Health  
**Status:** Active  
**Referring Source:** Klarus  
**Visit Date:** 11/27/2014  
**Visit Acuity:** Unscheduled Visit  
**Visit Outcome:** MHP Call Complete  
**Transport Resource:** N/A  
**Note:**

**Arrived on scene per Klarus request** to stop wound vac and place a wet to dry dressing due to blockage on wound vac. Upon my arrival client met us at the door in good spirits. She explained her wound vac started with an error message which read blockage. She did have a blockage in the tubing closest to the pump itself. I clamped the tubing and turned the vac off then opened the tubing, re-secured the tubing then unclamped it and turned the pump back on; the blockage immediately cleared. I waited with the client for about ten minutes to see if the problem was solved. I provided client with our non-emergency number in the event it occurred again we would then place a wet to dry dressing. I contacted the after hours number for Klarus and spoke with Diana. I left all of the material for the wet to dry dressing in the clients home. Visit Complete. MHanson



**Program:** Home Health  
**Status:** Active  
**Referring Source:** Klarus  
**DSRIP Client:** No  
**Visit Date:** 11/27/2014  
**Visit Acuity:** Unscheduled Visit  
**Visit Outcome:** MHP Call Complete  
**Transport Resource:** N/A  
**Response Number:** 141127130  
**Note By:** Shane A. Ansel

Klarus called for us to go out and check pt's cath. relayed it was leaking. upon arriving on scene, pt relayed pain. wife relayed she had not noticed any leaking. first the bulb was deflated. 7cc's of fluid pulled out. some urine voided after deflation from around the cath. cath was advanced approx 2inches and re-inflated with 10cc's of fluid. pt confirmed relief of his pain. i told him to call back if he started having pain again. the only other option will be to remove the cath. the urine was dark yellow. no sediment noted.



**Program:** Home Health  
**Status:** Active  
**Referring Source:** Klarus  
**DSRIP Client:** No  
**Visit Date:** 11/27/2014  
**Visit Acuity:** Unscheduled Visit  
**Visit Outcome:** MHP Call Complete  
**Transport Resource:** N/A  
**Response Number:** 141127147  
**Note By:** Shane A. Ansel

Client called back because he was still hurting. Made scene and removed cath. no problems removing. he immediately felt better and relayed no pain again. he urinated into a urinal so there may have been a blockage in the cath itself.



From: MHP Clients [mailto:medstarhome@medstar911.org]  
 To: Monica Cruz; Darla Kemp; Matt Zavadsky; Sherry Willingham; Susan Swagerty  
 Subject: MIHP Note - Source: Klarus - Program: Home Health - 911

Client: XXXXX, Joycia Y – 19XX-XX-XX  
 Program: Home Health - 911  
 Referring Source: Klarus  
**Visit Date: 4/11/2015**  
 Visit Type: Home Visit  
**Visit Acuity: 911 Call**

AOSTF pt. lying on couch in NAD. Crew reports pt. has been having CP since last night and is mid sternal and radiates to her back, rates at 9/10. Her pain is worsened by movement and breathing. Her V/S are reported to be stable and she is reported to be a little anxious. In speaking with the pt. she agrees with the crews report of the situation. She also reports she has had a 10lb weight gain since yesterday according to her Cardiocom unit. She has had this in the past and this is the same pain she usually has. She believes her NTG will relieve it but she was afraid to take as Klarus usually walks her through it. She also has an anxiety history and has not taken her Xanax or other morning meds yet. Pt. denies any N/V or diaphoresis.



She also feels like her hands and feet are swollen as they feel tight. She denies additional complaint. Upon exam noted pt. in NAD. Pt. is A&OX4, PPTE, MAE. VSS. BSCB, non labored. SR on 12-lead w/o acute changes. No edema is noted to hands and very mild edema noted to top of her feet once socks removed. I spoke with Diana at Klarus regarding this pt. **I reported her complaints. I did advise her about the weight gain. She felt pt. should take her NTG. She also reports pt. has been to the hospital for this in the past and was ruled Anxiety those times.**

Pt. reported dramatic improvement in the discomfort after the NTG. Pt. was advised we could not R/O cardiac involvement without blood work but pointed out what we found on exam. Pt. opted to take her morning meds and stay at home.

**As we were getting ready to leave Diana called back and reported her weight had in fact increased by 10 lbs. over the last 24 hours and would like her to be diuresed. I relayed this to the pt. and she agrees to plan.**

A Chem 8 was obtained and her K+, Hct and Hgb was noted to be low.



I spoke with Dr. Davis regarding the Potassium dosing since she was a little low and he advises to increase her Potassium from 40 mEq Bid to 40mEq Tid today only.

**IV was initiated and Lasix 100mg IV was given SIVP. Pt. was advised to monitor and record her urine output using the hat she was provided and we would see her at 1400 for a F/U.** If anything changes to call Klarus or us back. Pt. remains pain free upon departure.

I again spoke with Diana and advised of the treatment and that she would need a visit from them within 24 hrs. by protocol and she was going to get that set up. Visit complete.



From: MHP Clients [mailto:medstarhome@medstar911.org]

**Sent: Sunday, April 12, 2015 10:05 AM**

To: Monica Cruz; Darla Kemp; Matt Zavadsky; Sherry Willingham; Susan Swagerty

Subject: MIHP Note - Source: Klarus Program: Home Health - 911

AOS for scheduled home visit. Found pt. sitting on couch and in NAD.

Pt. is more alert and talkative this morning and her general appearance is better. Pt. states she is feeling much better today and was able to get a good nights sleep. She further reports the swelling in her hands and feet has gone down as has her abdomen. She currently denies CP, SOB, N/V or other associated symptoms. She reports filling the urine hat 6-7 times since yesterday morning and her weight was down to 195 this morning.

**We again discussed the importance of watching her fluid and sodium intake.** Upon exam noted pt. A&OX4, PPTe, MAE. BSCB and non labored. Abd. SNT, no edema noted in extremities, + PMS x 4. Chem 8 was run again this morning and the only significant change was her Potassium was down to 3.2. I contacted Dr. Davis and he agrees with increasing her potassium again today to 40 mEq TID. **Pt. will see her PCP in the morning for lab work. Pt. advised to call back for any changes and that Klarus would pick back up on her regular scheduled day. Diana with Klarus contacted and advised of pt. status, she agrees with plan and will F/U as needed.**



COMMUNITY PARTNERSHIPS  
By Meredith Anastasio, J. Daniel Bruce, John Mezo

## Home Health, Hospice and EMS Team Up to Tackle the Triple Aim



Outside the hospital, community resources can work together for better care of patients

The drive to achieve the IHI's Triple Aim has fostered the creation of many innovative partnerships. This column focuses on the synergistic relationships and integrations developing between mobile integrated healthcare (MIH) and the home healthcare industry.

One of the main goals of MIH is to navigate patients



Increased Referrals the transitioning healthcare

MedStar Mobile Healthcare

# MOBILE INTEGRATED HEALTHCARE

Approach to Implementation



MOBILE INTEGRATED HEALTHCARE Approach to Implementation  
MedStar Mobile Healthcare

JONES & BARTLETT LEARNING

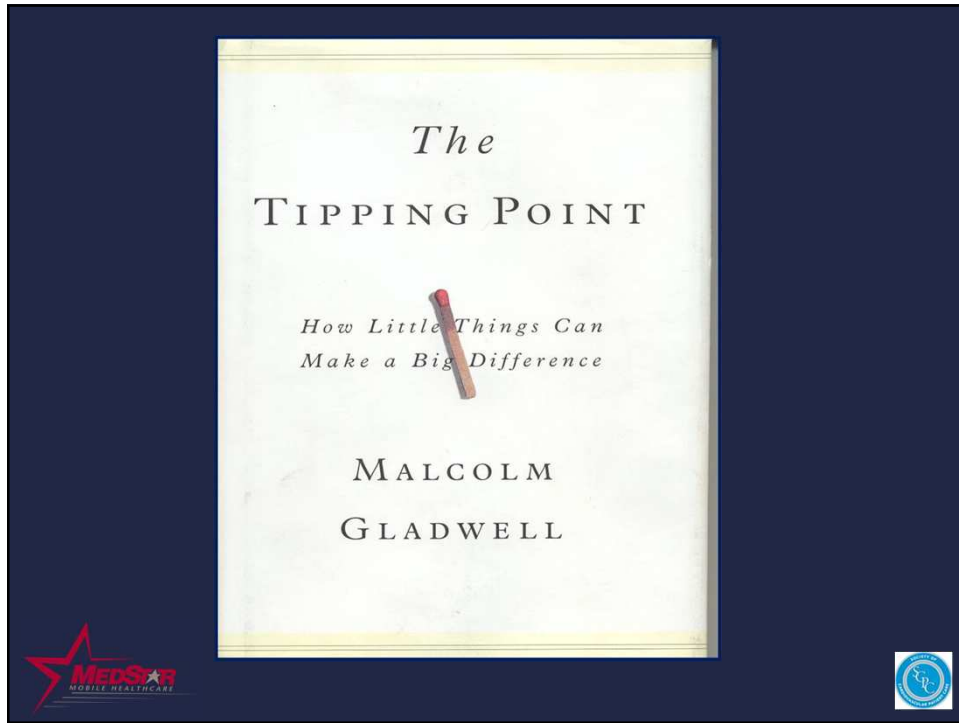
NAEMT

**"Mobile Integrated Healthcare is an innovative and patient-centered approach to meeting the needs of patients and their families.** The model does require you to "flip" your thinking about almost everything – from roles for health care providers, to what an EMT or paramedic might do to care for a patient in their home, to how we will get paid for care in the future.

The authors teach us how to flip our thinking about using home visits to assess safety and health. They encourage us to segment patients and design new ways to relate to and support these patients. **And they urge us to use all of the assets in a community to get to better care.** This is our shared professional challenge, and it will take new models, new relationships, and new skills."

**Maureen Bisognano**  
President and CEO  
Institute for Healthcare Improvement



## Change From the Inside Out - Health Care Leaders Taking the Helm

Donald M. Berwick, MD, MPP1; Derek Feeley, DBA1; Saranya Loehrer, MD, MPH1  
1Institute for Healthcare Improvement, Cambridge, Massachusetts  
JAMA. **March 26, 2015.**  
doi:10.1001/jama.2015.2830

Even as politicians and pundits continue to debate the merits of the Affordable Care Act (ACA), it is time to look beyond it to the next phase of US health care reform.

innovations in delivery mature at a far faster pace than laws and regulations evolve, even in far less contentious political times than today's. **For example, productive new health care roles, such as community paramedics, community health workers, and resilience counselors, *emerge at a rate that legal requirements and reimbursement policies simply do not match.***

**JAMA** The Journal of the American Medical Association





