2017 EMS 3.0 Transformation SUMMIT Hosted by NAEMT

April 24, 2017 ▪ Arlington, Virginia
Holiday Inn Rosslyn at Key Bridge

3.0

Welcome To EMS 3.0!

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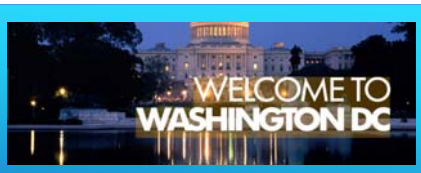

Surviving & Thriving

EMS 3.0 Transformation SUMMIT

Program

8:00 a.m. — REGISTRATION OPEN
Coffee service sponsored by OnStar & Stryker

10:30 a.m. — WELCOME AND OPENING REMARKS
"EMS 3.0" - Industry Alignment on the 3.0 Initiative
Matt Zavadsky, MS-HSA, EMT, Chief Strategic Integration Officer, MedStar Mobile Healthcare, Fort Worth, TX; moderator

10:50 a.m. — THE MEDICINE
Clinical Care, Protocols, Medical Oversight & Integration of Health Services
Dr. Bradford H. Lee, MD, JD, MBA, Medical Director, REMSA, Reno, NV
Dr. Mark Conrad Fivaz, MBChB, MMedFamMed, Clinical Director, Priority Solutions, Inc., and Emergency Response Operations Director for PDC, Salt Lake City, UT

12:10 p.m. — THE EVIDENCE
Program Evaluation, Research & Publication, Outcome Measures
Cynthia Wides, Research Policy Analyst, University of California, San Francisco, CA
Walt Stoy, Ph.D., EMT-P, Professor and Director, Emergency Medicine Program, School of Health and Rehabilitation Sciences, University of Pittsburgh, PA

12:50 p.m. — BUFFET LUNCH
Sponsored by Medtronic


Surviving &
Thriving
EMS 3.0
Transformation
SUMMIT
1:20 p.m. — THE MONEY
Economic Models, Payment Reform, & ROI
Chief John Sinclair, President, International Association of Fire Chiefs and Chief of Kittitas Valley Fire and Rescue, Ellensburg, WA
Stacy Elmer, MPA, MA, EMT, Director, Medical Device Integration and Special Programs, Kaiser Permanente, Southern California Region
2:00 p.m. — THE EDUCATION
Education Systems, Certification & Credentialing, Continuing Education
Sponsored by Jones & Bartlett Learning Public Safety Group
John R. Clark, JD, MBA, NRP, FP-C, CCP-C, CMTE, Chief Operating Officer, International Board of Specialty Certification, Carmel, IN
Dr. Walt Stoy, PhD, EMT-P, Professor and Director, Emergency Medicine Program, School of Health and Rehabilitation Sciences, University of Pittsburgh, PA
2:40 p.m. — ICE CREAM BAR BREAK
Sponsored by Digitech & JEMS
3:00 p.m. — THE POLITICS
What's happening inside the beltway in DC, and how is that changing the healthcare and EMS dynamics in the U.S.
Asbel Montes, Vice President of Government Relations & Reimbursement, Acadian Ambulance Service, Carencro, LA
Jeffrey J. Kimbell, President, Jeffrey J. Kimbell & Associates, Washington, DC
3:40 p.m. — NEXT STEPS
5 Actions You Need to Take
Matt Zavadsky, MS-HSA, EMT, Chief Strategic Integration Officer, MedStar Mobile Healthcare, Fort Worth, TX; moderator
4:00 p.m. — ADJOURN


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or
Text to: **817-991-4487**

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Shared Vision = *Industry Alignment!*

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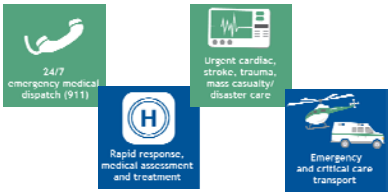
Urgent and Emergent Care Remain *Core* to EMS



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But EMS Must Offer Expanded *Roles*

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EMS is *Uniquely Positioned* to Help

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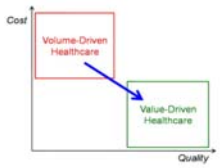
Healthcare 3.0



CENTER FOR HEALTHCARE QUALITY & PAYMENT REFORM

EMS 3.0 Transformation SUMMIT

Demonstrating Value for EMS

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https://hcp-lan.org/workproducts/apm-whitepaper.pdf

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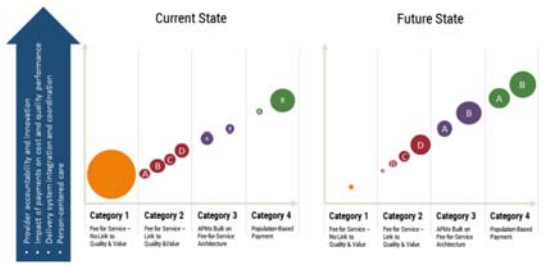

https://hcp-lan.org/workproducts/apm-whitepaper.pdf

EMS 3.0 Transformation SUMMIT

The Revolution in EMS Care

Thanks to new technology, new life-saving techniques and new missions, ambulance crews are far from the 'horizontal taxicabs' they once were

By Laura Lancro

Sept. 25, 2016

THE WALL STREET JOURNAL.

There's a revolution taking place in emergency medical services, and for many, it could be life changing.

From the increasingly sophisticated equipment they carry and the new lifesaving techniques they use, to the changing roles they play in some communities—providing preventive care and monitoring patients at home—ambulance crews today are hardly recognizable from their origins as "horizontal taxicabs."

Coming soon: preventive-care teams

In what could amount to a sea change for many EMS workers, health-care policy makers are looking at having so-called community paramedicine teams provide preventive care—and even make regularly scheduled house calls.

In a concept some are calling "EMS 3.0," ambulance crews with advanced medical training in more communities already are treating patients in their homes, including frail or elderly patients, helping to manage chronic conditions like diabetes, and are checking on recently discharged hospital patients to ensure they are following their care instructions.

http://www.wsj.com/articles/the-revolution-in-ems-care-1474855802

EMS 3.0 Transformation SUMMIT

A healthcare expert explains why you should think twice before taking an ambulance to the hospital

Arielle Berger and Alana Kakoyiannis

April 20, 2017

DR. ELISABETH ROSENTHAL: One of my favorite stories in the book is a woman who was in a minor bike crash. She knew she'd hurt something. Everyone said, "Oh, let's call an ambulance." And then, like a month later, she gets a bill from the ambulance company. And it was for, like $800. And she said, "Wait! There must be a mistake here. ***This was the fire department ambulance."***

And the ambulance company said, "Nope. We charge, and we're not in your network. And you owe us." And she could have taken a cab to the hospital, but the ambulance was there. She went along with it, and didn't think much of it.

We like to think of ambulances as doing a public service which they clearly do, but they're also charging now. They're billing, and they're often out of network.

I'm a jogger, I was running in New York, and I tripped on the pavement and landed facedown, near Columbia. A bunch of students ran up to me and said, "Oh, can we help you? Should we call an ambulance?" And I was like, "No! I am walking to the hospital."

When people call an ambulance, or think, why don't we just call an ambulance or get in an ambulance there may be financial repercussions.

http://www.businessinsider.com/think-twice-before-taking-ambulance-hospital-elisabeth-rosenthal-insurance-bills-healthcare-hospital-emergency-2017-4


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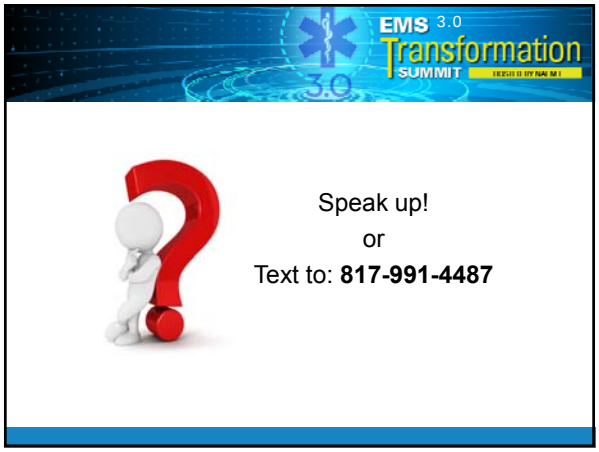
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Speak up!
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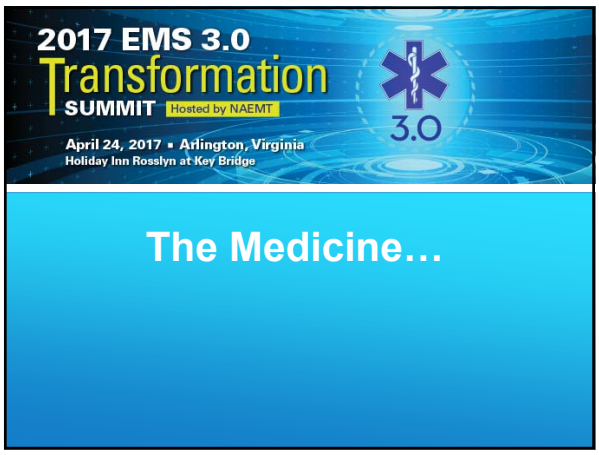
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The Medicine…

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THE MEDICINE: The EMS Transformation Summit – Attributes of EMS 3.0

Dr. Brad Lee, MD, JD, MBA, Medical Director, REMSA, Reno, NV
Dr. Conrad Fivaz, MBChB M.MED(FAMMED) IAED; PDC, Salt Lake City, UT

Monday, April 24, 2017

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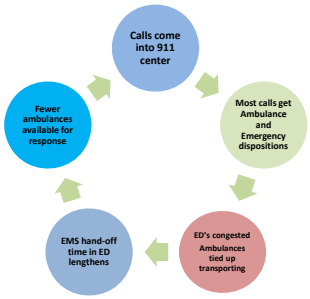
Supply and Demand Mismatch

- **How do we break the chain of events?**



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Increase in 911 call demand

- An estimated 240 million calls are made to 911 in the U.S. annually [1]
- SPRINGFIELD, Ohio — Emergency medical service runs by the Springfield Fire/Rescue Division have increased nearly 40 percent in a decade [2]
- Boston EMS said it has seen a 26 percent rise in calls over the past decade (2005 to 2014) [3]
- In 2015, the Philadelphia Fire Department's emergency medical service responded to about 270,000 911 calls. That volume represented an increase of almost 25,000 from the prior year and more than 55,000 from 2007 [4]

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Medically Unnecessary Transports Published Studies

- Cho et al. literature review (2007) cited that medically unnecessary transports comprised at least 31% of all emergency ambulance transports and as high as 92%.
- In their own study (Cho et al., 2007), the authors conducted a random retrospective chart review of one year's data of patients at a Level 1 Regional Trauma Center in the Bronx, NY (St. Barnabas).
- Even using a very "conservative operational definition of *medically necessary transports*," **15% of those patients transported by ambulance to this hospital did not require EMS transportation to an Emergency Department.**[5]

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Responding to our community's healthcare needs. 28

Medically Unnecessary Transports Published Studies

- a study by Weaver, Moore, Patterson, and Yealy found that from 1997 to 2007, there was an increase from 13% to 17% in the number of medically unnecessary ambulance transports nationally, as part of all ambulance transports as a whole (2011). [6]
- English study from 1998 used a panel of emergency room physicians who voted whether or not transports were medically necessary and found that 16%, or approximately 75,000, of transports were medically unnecessary by unanimous vote (Donovan, 2009) [7]

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Responding to our community's healthcare needs. 29

Regional Emergency Medical Services Authority REMSA

Paramedic Ambulance

Care Flight

Nurse Health Line

Community Paramedics

Education

Special Operations

Special Events

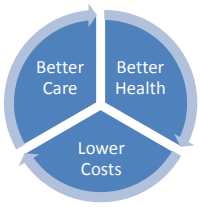
Communications

Private non-profit serving Northern Nevada and Northern California
celebrating 35 years of service

TRIPLE AIM

Improve the quality and experience of care

Improve the health of populations



Reduce per capita cost

Source: Berwick, DM, et al; The Triple Aim: Care, Health & Cost; May/June 2008; Health Affairs

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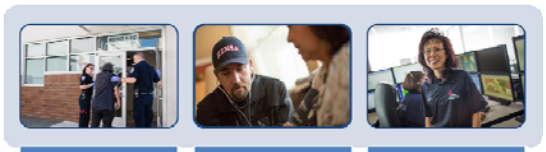
Hotspotter Demographics

953 unique individuals visited an ED 12 or more times in a given 12 month period (Washoe County, 2009-2013). They accounted for:

- 20,844 ED visits
- $65 million in total hospital charges
- Most common diagnoses: headache, abd pain, back pain
- 46% lived in one of three Washoe County zip codes
- $46.6 million hosp charges: uninsured, Medicaid, Medicare)
- Insurance : 28% Uninsured, 29% Medicaid, 19% Medicare

Community Health Programs



Transport to Alternative Destinations

Ambulance based payments for transport to alternative destinations other than the ED, including to urgent care centers, mental health hospitals and detoxification centers.

Community Paramedicine

Specially-trained community paramedics provide in-home services under approved protocols to avoid unnecessary ED visits, hospital admissions and readmissions.

Nurse Health Line

Registered nurse navigators provide 24/7 access to assessment and triage of callers to the appropriate health care or community service.

The Patient/Caller Experience

High levels of satisfaction with ECNS

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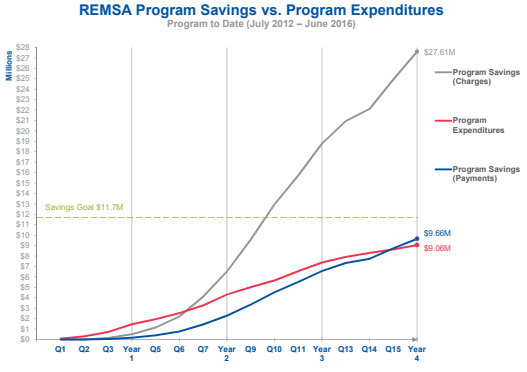
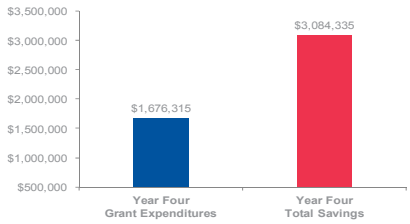


Return on Investment

Award Year Four (July 2015 - June 2016)



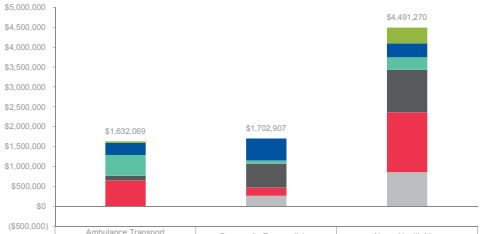
Return on Investment: 84%

Notes:
- Program costs include all grant funded expenditures.
- Savings data provided by University of Nevada, Reno, Nevada Center for Health Statistics and Informatics.

Community Health Programs

Program Savings by Intervention

Program to Date (Jan 2013 - Dec 2015)

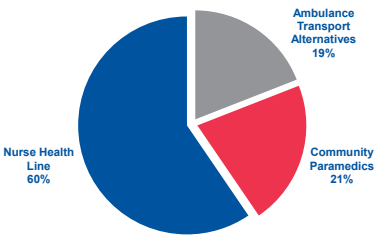


	Ambulance Transport Alternatives	Community Paramedicine	Nurse Health Line
Other Gov't	$37,698	($3,367)	$393,920
Medicare	$301,797	$556,181	$351,023
Uninsured	$518,922	$75,841	$314,876
Commercial Insurance	$127,006	$603,855	$1,065,370
Medicaid	$646,646	$204,508	$1,511,303
Unknown	$0	$265,889	$854,778
Total Savings	$1,632,069	$1,702,907	$4,491,270

Savings Generated by Intervention

Program-to-Date (Jan 2013 - June 2016)

$9,663,154 in Avoided Payments



Community Health Program

Program Results

Program to Date (Four Years): 7/1/12 – 6/30/16

1. Improved access to quality care
   - 63,866 calls to Nurse Health Line (9/13 – 6/16)
   - 1,524 enrolled Community Paramedic patients (6/13 – 6/16)
   - 1,438 Transports to Alternative Destinations (1/13 – 6/16)
2. Improved patient quality of life & satisfaction
3. Total est. program savings: $9.66 million
   - 6,202 ED Visits Avoided
   - 1,024 Ambulance Transports Avoided
   - 104 Hospital Readmissions Avoided

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Note: Estimated program savings calculated based upon average payments.

Responding to our community's healthcare needs.

Community Paramedicine

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

- Medical care plan adherence
- Medication reconciliation
- Point of care lab tests
- Personal health literacy
- Protocols: CHF, COPD, MI, Cardiac Surgery

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Community Paramedicine

Programs

- Post-hospital Discharge Patient Follow-up
  - Assist patients avoid complications after discharge from hospital
- Episodic Evaluation Visit
  - Provide primary care physicians with a patient care service when an emergency department visit may not be optimal
- Hotspotter Intervention
  - Help frequent emergency dept users to access more appropriate services for unmet primary care, mental health or social needs

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Responding to our community's healthcare needs.

Community Paramedicine

Medical Oversight

- Community paramedics function under medical director-approved protocols
  - Existing ground ambulance protocols, PLUS
  - New community paramedic protocols
  - Under the direction of REMSA Medical Director with permission of patient's primary care physician
- Quality Improvement
  - REMSA Medical Director oversees CQI program and audits

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Community Paramedicine

Protocols & Training

- Community Paramedicine Protocol Manual
  - Current: Hotspotter, Congestive Heart Failure, Myocardial Infarction, Evaluate and Refer
  - Future: Diabetes, Pneumonia, Dehydration, Nausea, ER discharge
- Training
  - Initial group (500 hours), CP competency test, refinement, second group (150 hours), incl didactic and clinical rotation
  - Accredited by University of Nevada, Reno

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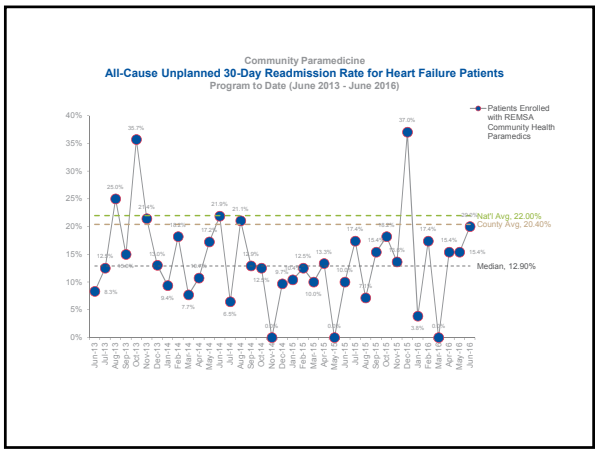
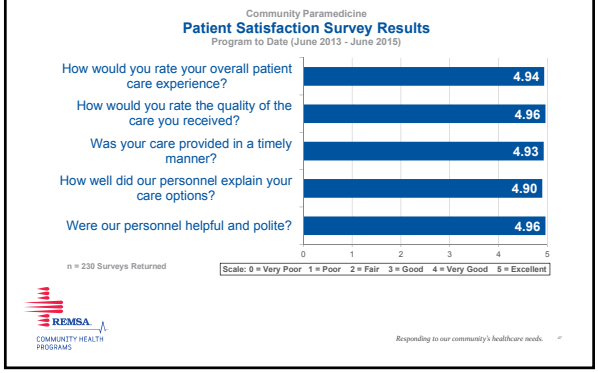
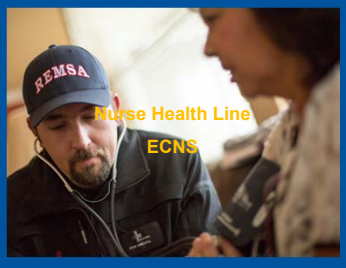
Responding to our community's healthcare needs.



Community Paramedicine





Key considerations as laid out by the NAEMT

- Best practice
- Science behind Nurse Triage
- Clinical Governance and safety
- Where
- How

911 call → ECNS low acuity criteria met (selected Omega and Alpha calls)

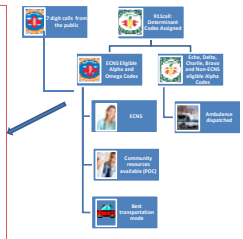
- The ECN is an RN with acute care and triage experience, EMD-Certified and ECNS-Certified. The ECN is housed within the Emergency Communication Center. Regular QA and working under medical oversight

The Emergency Communication Nurse (ECN)

How does ECNS work?

ECN determines the patient's Recommended Care Level (RCL):

- Emergency response (911) →
- Emergency care as soon as possible
- Seek medical care within 1-4 hours
- Consult medical provider to review symptoms
- Consult regional poison control center
- See medical provider within 12 hours
- See medical provider within 1-3 days
- Routine appointment with provider
- Routine appointment with dentist
- Self-care/Home care instructions
- Others



ECNS recommends the best health care resources to meet the patient's needs

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Responding to our community's healthcare needs.

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Clinical governance

As with other disciplines under the IAED, there is a formal process in place for evaluating Proposals for Change and recommendations for improvements to the ECNS. This occurs through evidence-based research and the expertise of the ECNS Council of Standards.

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Codes determined to be safe for ECNS are based on research

- IAED Council of Standards has approved 88 OMEGA-level and 53 ALPHA-level eligible codes.
- Each local EMS Center Medical Director will select the codes from the approved list which will become ECNS eligible for their community

- **In a study by Scott, Clawson, Fivaz, et al. 16,763 cases were reviewed, retrospectively.** [8]
  - 89% of these cases did not have even one vital sign indicator of an unstable patient.
  - Only 1.1% were transported lights and sirens.
  - With the exception of the ALPHA-level seizure cases, the ALPHA-level patients are suitable for secondary triage in a best practices setting.
  - The secondary nurse triage process should identify the few at-risk patients that exist in the low-acuity calls.

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Not all secondary medical telephone triage programs are equal

- IAED OFFICIAL WHITE PAPER®: SMTT……. "is safe and effective when…"

✓Clinically sound medical protocols
✓Trained Registered Nurse
✓Housed within an ECC
✓Medical oversight

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Responding to our community's healthcare needs.

Stratification Definition:
Consistent or particular way of arranging things according to layers or categories

- ECNS is highly stratified.
  - Multiple layers of clinical considerations
  - 212 protocols
  - Multiple recommended care levels
  - Sub-tiers of care offered

There is confidence in the ability to determine appropriate alternative dispositions using this system.

Stratification

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Clinically Sound Medical Protocols

Clinical Decision Support Software (CDSS)

- Clinical Decision Support Software system used in ECNS was developed and enhanced over the last 17 years
- First live implementation 2001 South Africa
- Base protocol set: in excess of 80 million triage calls completed internationally
- The protocol set is reviewed and updated continuously based on research and expertise of members of the ECNS Council of Standards

212 Protocols in the set

- Top 5 most frequently used protocols:
  - Falls
  - Abdominal pain
  - Back pain
  - Vomiting
  - Leg pain

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Responding to our community's healthcare needs.

ECNS Agencies

ECNS In the USA

- MedStar in Fort Worth, Texas
  - o 911 access only
- Las Vegas Fire, Nevada*
  - o 911 access only in the initial phase
- REMSA in Reno, Nevada
  - o 911 access and direct dial (7-digit) Nurse Health Line
- Northwell Health Services in Long Island, New York
  - o AIM

ECNS International

- Canada Nova Scotia*
- United Kingdom ambulance trusts EOEAS, SWAST
- South Africa (Johannesburg Netcare 911)
- Botswana (Gaborone)
- Australia Queensland Health (Large Nurse Triage call center
- Austria (3 states)
- Ireland HSE*

* Implementation Pending

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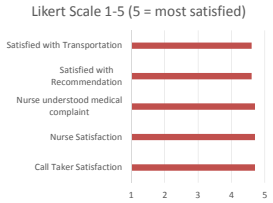
- MedStar in Fort Worth, TX survey results:
  - 90% of callers indicated that it helped talking with a nurse.
  - 86% stated that their condition got better.
  - 77% stated they do not believe the call should have been handled any differently.
  - Satisfaction scores were 4.6 - 4.7 on a 1-5 point scale for satisfaction with the nurse, care provider recommendation, and transportation recommended.

[10]



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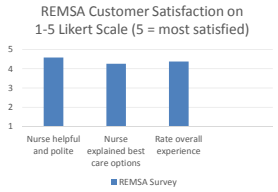
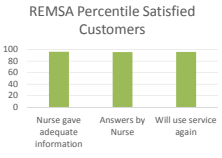
High satisfaction in Texas

Remsa customers rate ECNS high in Reno July 2014 -June 2015 [11]





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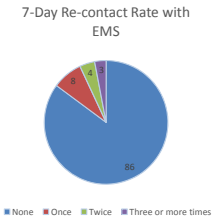
High Levels of Customer Satisfaction and Efficacy

61

National findings in the UK:

- 84% of all respondents said they were treated with kindness and understanding "all of the time."
- 11% felt they were "some of the time."
- 5% said they were not treated with kindness and understanding overall.

Similar results were produced for treatment with dignity and respect in this same survey. *12



Priority Solutions, Inc.

Partners and Potential Funding for ECNS

- Grants
- Hospitals
- Physician groups
- Insurance companies
- Other partners

Priority Solutions, Inc.

REMSA COMMUNITY HEALTH PROGRAMS

Responding to our community's healthcare needs.

MedStar Data

Expenditure Savings Analysis (1) — **9-1-1 Nurse Triage Program**

Based on Medicare Rates

Analysis Dates: **June 1, 2012 - Feb. 28, 2014**
Number of Calls Referred: **1382**
% of Calls Alternatively Disposed: **41.0%**

Category	9-1-1 Transports to ED Base	Avoided	Savings
Ambulance Charge	$1,668	566	$944,088
Ambulance Payment (2)	$427	566	$241,682
ED Charges	$904	566	$511,664
ED Payment (3)	$774	566	$438,084
ED Bed Hours (4)	6	566	3,396
Total Charge Avoidance			**$1,455,752**
Total Payment Avoidance			**$679,766**

Per Patient Enrolled	ECNS
Charge Avoidance	$2,572
Payment Avoidance	$1,201

- Presented by MedStar at Navigator Conference 2014 *13

Priority Solutions, Inc.

Northwell Health: PROVIDING ACUTE CARE AT HOME

- This observational study describes a **Community Paramedicine (CP) model for treatment of acute medical conditions within an Advanced Illness Management (AIM) program**, and compares its effect on emergency department (ED) use and subsequent hospitalization with that of traditional emergency medical services (EMS).
- The CP model was implemented between January 1, 2014, and April 30, 2015 in a suburban–urban AIM program.
- Participants included **1,602** individuals enrolled in the AIM program with **high rates of dementia, decubitus ulcers, diabetes mellitus, congestive heart failure, and chronic obstructive pulmonary disease**.

Preliminary Results:

Emergency calls were routed to a nursing clinical call center where they are triaged using emergency communication nurse system de-escalation.

The program has had a **zero clinical defect rate** (that is, zero reported adverse clinical errors or poor outcomes), a very low ED relapse rate post-CP visit, and **estimated financial savings of $7,267,081** in avoided payments at an extremely low cost point, with the potential to provide triple-digit returns on investment in a risk-based reimbursement environment [13]

Nurse Health Line
858-1000

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

- Protocol-driven Assessment
  - Emergency Communication Nurse System
- Access
  - Non-emergency number
  - Omega Protocol via 9-1-1
- Recommended Level of Care & Recommended Location of Care
  - On-line Directory of Services

REMSA COMMUNITY HEALTH PROGRAMS

Responding to our community's healthcare needs.

Nurse Health Line
Protocols

- Software by Priority Solutions
  - *LowCode* / Emergency Communication Nurse System (ECNS)
- Training
  - Emergency Medical Dispatch (EMD) – 3 days
  - Emergency Care Nurse System (ECNS) – 4 days
- Accredited by International Academy of Emergency Dispatch
  - EMD Accredited Center of Excellence (13 years)
  - ECNS Accredited Center of Excellence (2015)

REMSA COMMUNITY HEALTH PROGRAMS

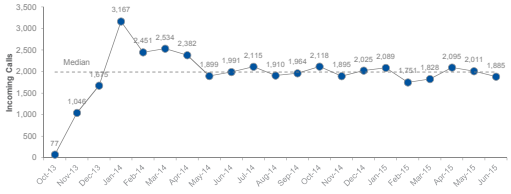
Responding to our community's healthcare needs.

Nurse Health Line

Nurse Health Line

Incoming Calls by Month

Program to Date (Oct 2013 - June 2015)



REMSA COMMUNITY HEALTH PROGRAMS

Responding to our community's healthcare needs.

Nurse Health Line Calls by County

Program to Date: October 2013 – June 2015

N.H.L. Patient Location by County		Calls	% of Calls
Northern Nevada – Total		**13,497**	**95.51%**
Washoe County	pop. 440,078 (15.5%)	10,800	76.85%
Carson City	pop. 54,522 (1.9%)	1,042	7.37%
Elko County	pop. 52,766 (1.9%)	7	0.05%
Lyon County	pop. 51,769 (1.8%)	853	6.04%
Douglas County	pop. 47,539 (1.7%)	385	2.72%
Churchill County	pop. 23,989 (0.8%)	160	1.13%
Humboldt County	pop. 17,279 (0.6%)	116	0.82%
White Pine County	pop. 10,034 (0.4%)	8	0.06%
Pershing County	pop. 6,698 (0.2%)	24	0.17%
Lander County	pop. 6,009 (0.2%)	11	0.08%
Mineral County	pop. 4,500 (0.2%)	15	0.11%
Storey County	pop. 3,912 (0.1%)	13	0.09%
Eureka County	pop. 2,018 (0.1%)	3	0.02%
Southern Nevada - Total		**157**	**1.11%**
Clark County	pop. 2,069,681 (72.9%)	149	1.05%
Nye County	pop. 42,282 (1.5%)	7	0.05%
Lincoln County	pop. 5,194 (0.2%)	0	0.00%
Esmeralda County	pop. 822 (0.0%)	1	0.01%
Nevada - Total	pop. 2,839,099	**13,654**	96.6%
California - Total		344	2.4%
Other States - Total		134	0.9%
Incoming Calls		**14,132**	100.0%

Nurse Health Line

October 2013 – June 2016

Lessons Learned

- Extraordinary community demand across broad spectrum (50%+ provider referral rate)
- Independent call review reports high protocol compliance
- No adverse outcomes
- Protocol-driven triage (NOT ADVICE) outperforms alternatives
- Advertising campaign effective
- Generates greatest share of program savings

REMSA COMMUNITY HEALTH PROGRAMS

Responding to our community's healthcare needs.

"Why won't the 911 system listen to its own nurses?"

"Why won't the 911 system listen to its own nurses?"

"I fell and twisted my ankle. I couldn't drive with the pain and swelling, and I didn't know what to do. I called 911.

After talking to two people, they put me through to a nurse who talked me through my fall and suggested taking a taxi to an urgent care. She was looking up nearby clinics with X-ray when the EMTs started arriving.

I told the EMTs that the phone nurse was helping me and I didn't need an ambulance. They didn't listen, weren't interested in hearing anything the nurse had to say, ordered me to hang up and instructed me to go to a hospital via ambulance.

Well, I did as I was told and dutifully got into the ambulance where some different EMTs took over. At the ER, the doctor diagnosed a sprained ankle.

I asked him why I had to go to the ER; he replied that taking a cab to an urgent care would have been just fine.

To the 911 EMTs: Thank you [for] your responses, but please listen to your dispatchers, nurses, and patients. The ER is crowded enough without my ankle injuries."

- Alice Peterson *Reno*

REMSA COMMUNITY HEALTH PROGRAMS

Reno Gazette-Journal
Letter to the Editor – 09/12/2015

Responding to our community's healthcare needs. 70

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ECNS Quality Improvement Program

Priority Solutions, Inc.

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Quality Assurance and Improvement

- Key component
- QA/QI Reports in AQUA
- Additional Two-Day training course for ECN-Q auditors
- Accreditation for ECNS

Priority Solutions, Inc.

Alternative Destination Transports

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 Hospitals

REMSA COMMUNITY HEALTH PROGRAMS

Responding to our community's healthcare needs.

Ambulance Transport Alternatives
Protocols

- Protocol-driven advanced assessment
  - To determine eligibility for alternative destination
- Protocols
  - Current ground ambulance protocols, PLUS
  - Additional protocols: Intoxicated, psychiatric, low acuity
- Documentation via Ambulance EPCR
  - Advanced assessment completed on every patient
  - Flex-field added to ground ambulance EPCR

REMSA COMMUNITY HEALTH PROGRAMS

Responding to our community's healthcare needs.

Ambulance Transport Alternatives
Training

- Training
  - 4 hours of field in-service for all ground ambulance personnel
  - Determine and document eligibility for alternative destination
- Quality Improvement
  - 100% review of repatriation transports by medical director

REMSA COMMUNITY HEALTH PROGRAMS

Responding to our community's healthcare needs. 76

Ambulance Transport Alternatives
January 2013 – June 2016

Preliminary Results

- 1,509 alt transports
- 1,438 ED visits avoided
- 131 ambulance transports avoided
- 4.7% repatriation rate

Estimated Savings

- $1,841,689 (avg. payments)

REMSA COMMUNITY HEALTH PROGRAMS

Responding to our community's healthcare needs. 77

Ambulance Transport Alternatives
January 2013 – June 2015

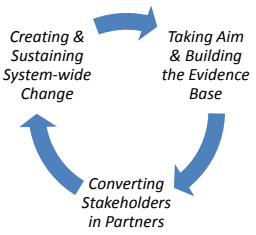
Lessons Learned

- Safe, reliable way for patients to receive right care at lower cost
- Factors: facility open, patient consent, facility consent to accept patient, facility accept insurance
- No adverse outcomes
- Volumes lower than projected
- EMS role in healthcare safety net
- Tool to intercept hotspotters

REMSA COMMUNITY HEALTH PROGRAMS

Responding to our community's healthcare needs. 78

Challenging the Healthcare Status Quo



REMSA COMMUNITY HEALTH PROGRAMS

Responding to our community's healthcare needs. ™

Targeted Utilization by Zip Code

		Medicaid ED Visits Baseline		ED Visits Baseline		Ambulance Trans Baseline		Nurse Health Line Intervention		Alt Destination Intervention	
Patient Zip Code		ED (n) Medicaid	Rate/1000 Persons/ Year	ED (n)	Rate/1000 Persons/ Year	Amb. Trans (n)	Rate/1000 Persons/ Year	NHL (n)	Rate/1000 Persons/ Year	ATA (n)	Rate/ 1000 Persons/ Year
89501	4252	798	187.68	3793	892	3712	873	300	70.6	124	29.2
89512	25574	4546	177.76	13205	516.4	3106	121	879	34.4	66	2.6
89502	43566	6419	147.34	19830	455.2	4291	98	1434	32.9	131	3
89431	1685	4490	2664.69	14128	390.4	3284	91	1190	32.9	27	0.7
89433	20188	2569	126.76	7678	380.3	1374	68	580	28.7	3	0.1
Average Rate for Washoe County is 320 visits/ 1000 persons/ year											
89506	38379	3126	81.45	11500	299.7	2258	59	969	25.2	13	0.3
89503	27891	1991	71.39	8263	296.3	2182	78	672	24.1	77	2.8
89434	25416	1366	53.75	6880	283.1	1964	81	549	22.6	15	0.6

New Model of EMS Care and Payment

Principles

Balanced triage	Prudent layperson definition of emergency
Patient-centered	Patient choice *and* consent
Integrated	Emergency care, primary care, mental health, social needs
Stakeholder-engaged	Tailored strategies for clinical partners
Payor-aligned	Referral to in-network care
New health information technologies	Exchange of patient records and data
Evidence-based	Use of new data analytics across all domains

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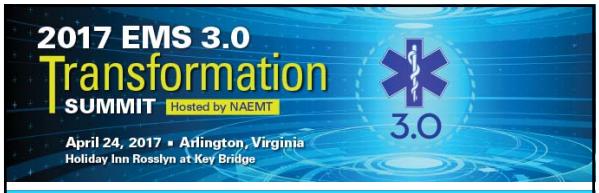


The Information…

EMS 3.0 Data Analytics

San Diego Resource Access Program (RAP)

- Originally a frequent user management program
- Primary functions:
  - Surveillance
  - Crisis intervention
  - Coordination
- Requests
  - Missing persons
  - Drug patterns
  - Trafficking
  - Others

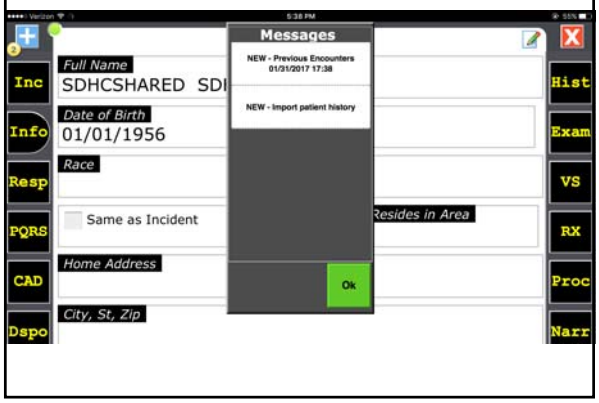
Our Mission

"We address the needs of vulnerable EMS patients and preserve safety net resources."

- High utilizers
- Vulnerable patients
- Provider safety and wellness

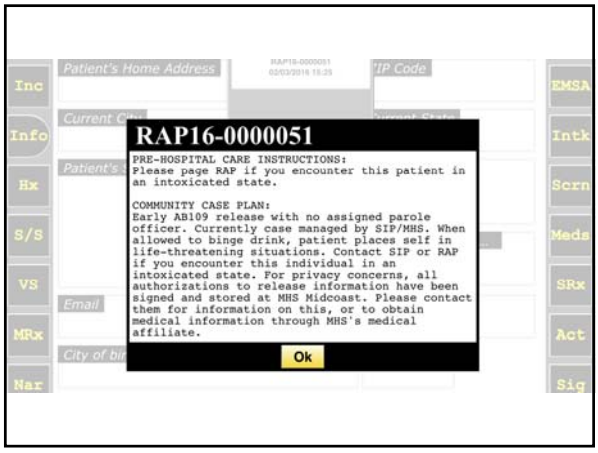
Data In

- ePCR
- Health Information Exchange
  - Medications
  - Medical History
  - Past encounters at hospitals and clinics
- Community Information Exchange (RAP)
  - Social services usage
  - Homeless Management Information System
- Reverse 211 (RAP)
  - Health Navigator communication



Data Out

- Community Information Exchange
  - EMS encounters
- 211 Referrals
  - Field referrals for social issues like nutrition, in-home care, etc.
- RAP to Field transmissions
  - Safety information
  - RAP care plans



Insight-driven patient care

- Protocols are built for the masses
- Patients can be complex
- 360 degree view

- Case Example
  - 30 y/o male
  - 7 calls this year
    1. Asthma
    2. Anxiety
    3. Terrorist threats
    4. Assault
    5. Jaw Pain
    6. CPR – Fentanyl OD
    7. Prescription refill

- The many faces of healthcare
  - Housing, nutrition, crime

Thesis Statement

Integrated health needs data management methods, processes, and systems designed to address an individual's complex needs.

Do our systems fit the purpose?

Integrated health requires integrated insight

Sector	Term
Law Enforcement	Intelligence
Business	Business Intelligence
Market	Market Intelligence
Healthcare	???

"...we waste energy in angrily accusing people of intellectual dishonesty or abuse of words, when their only sin is that they use words in ways unlike our own, as they can hardly help doing especially if their background has been widely different from ours." - Hayakawa and Hayakawa

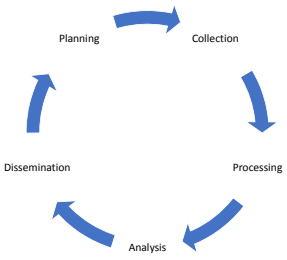
Law Enforcement Intelligence

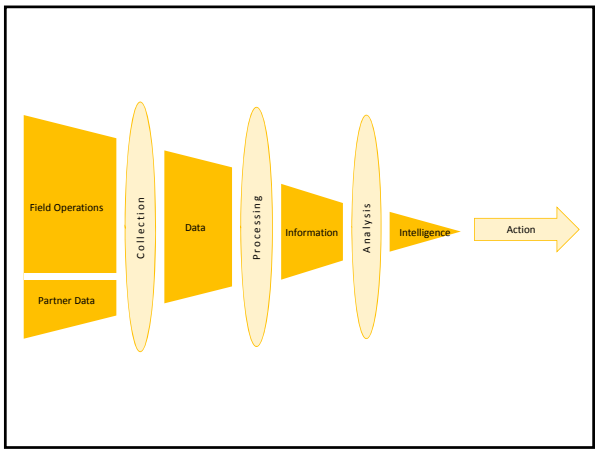
- The full picture is held by a broad range of individuals (and disciplines)
- "…end up responding to the immediate crisis and not implementing preventative and longer-term problem solving approaches." (1)

Law Enforcement Intelligence

"In an integrated intelligence approach, the expectation is that each and every member of staff understands what intelligence is, their responsibilities in collecting it, and how it can benefit them. An integrated intelligence approach assumes that the agency will be proactive in gathering intelligence, not merely relying on information that comes to them…"

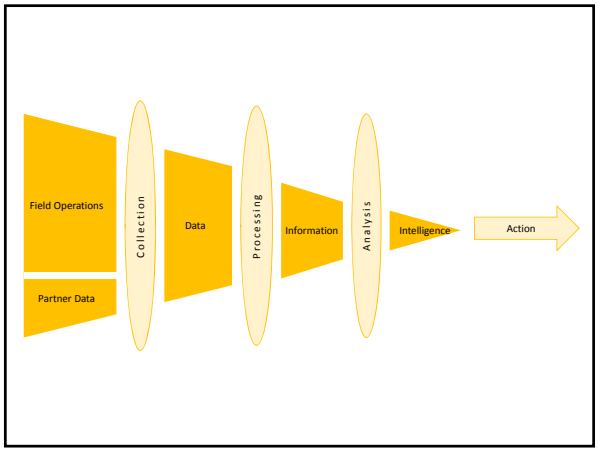
Intelligence Cycle





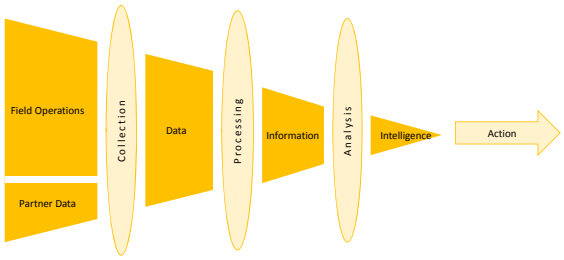
Data Collection

- Data storage
- Sources
  - EMS ePCR (NEMSIS)
    - Incident details
    - Referral notes
  - Partner data
    - HIE
    - CIE
    - Human insight



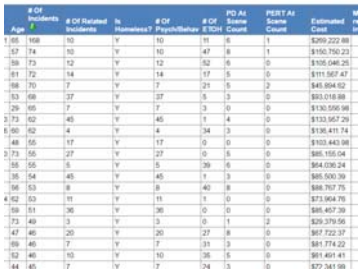
Processing

- Manipulates data to produce information
- Methods
  - Reports
  - Transformation
    - Incident – Patient – Provider – Procedure - Location
- Aggregation
- Classification

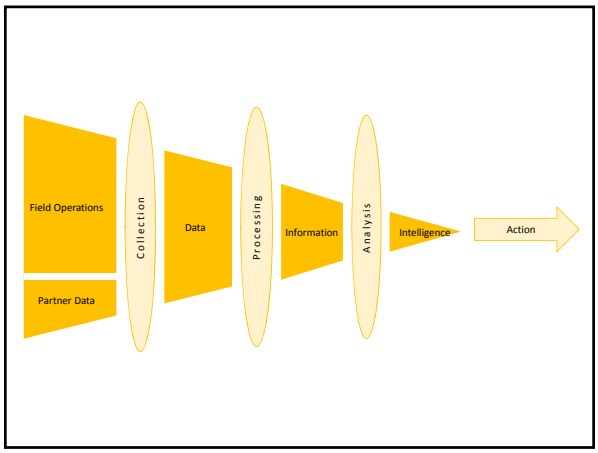


Analytics

- Extract insight, knowledge, or intelligence from information
- Methods
  - Rule-based query
  - Statistics
  - Machine Learning
    - Deep Learning
  - Artificial Intelligence
    - Neural Networks
  - Predictive analytics
  - Data Mining
    - Uses all methods above
    - Classification
    - Clustering
    - Association
    - Regression



Insight into Action



Dissemination

Ethics

- Privacy
- Need-to-know vs stalking
- Bias
- Data Equity
  - Safety Threat redefined
    - Verbal aggression
    - Aggression toward property
    - Aggression toward people
  - Drug seeking
  - Others

- Help our patients achieve their best possible health
- It will require innovation to help us
  - Grasp their complex stories
  - Collaborate with other systems of care
  - Find solutions for our patients

Our quest as integrated providers

References

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EMS 3.0 Transformation SUMMIT

Data Integrations Into Healthcare

Paul Trusty, MS

How Do We Integrate

- Goals
  - Establish bi-directional data exchange
  - Improve the accuracy of data
  - Decrease redundancies and improve efficiency
  - Partnership for patient care
- Challenges
  - Perceived to have low return / value
  - One-to-many or many-to-many relationships
  - Integration solution variety
  - Cybersecurity

Value

Hospital

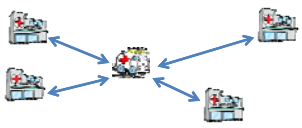
- Direct integration to registries
- Pre-admit – decrease door-treatment times if registration is a barrier
- Healthcare Information and Management Systems Society (HIMSS) stage 7 certification

EMS

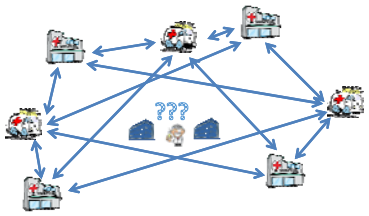
- Patient lookup
- Outcome data
- Improved demographic info

Getting Connected

- What we want



Real World Complexity



Integration Solutions

- HIE
- Integration engine
- Direct integration
- NEMSIS and HL7
  - Clinical Data Architecture (CDA)
  - Continuity of Care Document (CCD)
  - Admit, Discharge, and Transfer message (ADT)
- Phased approach

Integration Analysis

- Establish the integration goals
- Assess information security
  - Internal and external
- Establish the use case or model
- Define the dataset
- Define and understand the dataflow
- Design system for integration
- Implement, test, improve

Cybersecurity in EMS vs Other Healthcare

- EMS trusts partners
- Hospitals and payors verify the trust

Cybersecurity and Integration

- Reactive agencies pay 4.1 times more than proactive agencies for an incident
- Compliance is not enough
  - Prepare for partner's due diligence process
  - Create a cybersecurity due diligence process
  - Cybersecurity is basically a quality improvement process

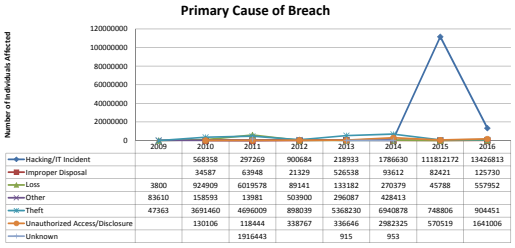
What's at Risk?

- Medical identity theft
  - Mother in New York vs CPS
  - Adverse outcomes from inaccurate meds, history, and allergies
  - On average costs patients $13,500
- Identity theft
- Money

Third Party Risk

- 63% of breaches in 2016 attributed to third party according to Soha Systems survey
- Anatomy of a common breach
  - Compromise a weak link
  - Use the weak link to gain access
  - Search for the goldmine
  - Extract the gold

HHS Breach Data



	2009	2010	2011	2012	2013	2014	2015	2016
Hacking/IT Incident		568358	297269	900684	218933	1786630	111812172	13426813
Improper Disposal		34587	63948	21329	526538	93612	82421	125730
Loss	3800	924909	6019578	89141	133182	270379	45788	557952
Other	83610	158593	13981	503900	296087	428413		
Theft	47363	3691460	4696009	898039	5368230	6940878	748806	904451
Unauthorized Access/Disclosure		130106	118444	338767	336646	2982325	570519	1641006
Unknown			1916443		915	953		

Summary

- Integrations provide enhancements and improvements
- Hurdles can include perceived value, cybersecurity, number of integration points, complexity
- Integration solutions help resolve challenges
- EMS will need to step up cybersecurity to match partner efforts

Questions?

EMS 3.0 Transformation SUMMIT

EMS 3.0 Transformation SUMMIT

Speak up!

or

Text to: **817-991-4487**

2017 EMS 3.0 Transformation SUMMIT Hosted by NAEMT

April 24, 2017 ▪ Arlington, Virginia

Holiday Inn Rosslyn at Key Bridge

3.0

The Evidence…

University of Pittsburgh

SHRS SCHOOL OF HEALTH AND REHABILITATION SCIENCES

Center for Emergency Medicine of Western Pennsylvania, Inc.

The Evidence – Program Evaluation, Research & Publication, Outcome Measures

Dr. Walt Alan Stoy
Professor – Emergency Medicine
University of Pittsburgh
Director of the Office of Education
Center for Emergency Medicine

The EMS Transformation Summit – Attributes of EMS 3.0
Monday, April 24, 2017

SHRS

The Evidence

"Do you see, then, that the important prediction is not the automobile, but the parking problem; not radio, but the soap-opera; not the income tax but the expense account; not the Bomb but the nuclear stalemate? Not the action, in short, but the reaction?"

Isaac Asimov

SHRS

The Phoenician Tablets

Apple

Android

1050BC

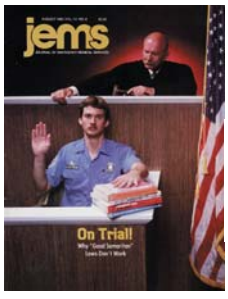
The Rosetta Stone

Found in 1799. Thought to be written in 196 BC.

The key to deciphering.

Journals

1797 - 1824

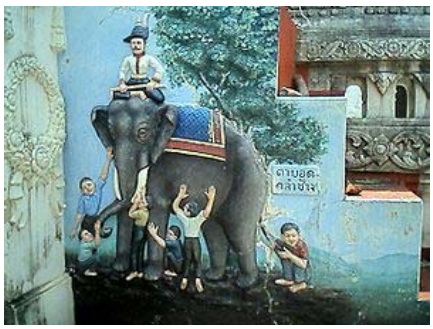


EMSWORLD EXPO

Overview of how to do studies

Abraham Maslow 1966, "…**if the only tool you have is a hammer**, to treat everything as **if** it were a nail."

The Blind Men and the Elephant



2013

This is why we need our version of the Rosetta Stone

ems.gov
Powered by NHTSA's Office of EMS

ABBREVIATIONS

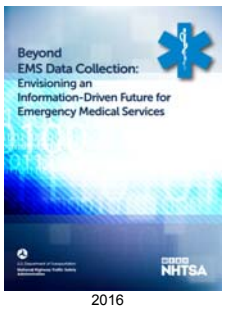
AGREE Appraisal of Guidelines Research and Evaluation
AHA American Heart Association
BTF Brain Trauma Foundation
CMS Centers for Medicare and Medicaid Services
EMSCAP Emergency Medical Services Cost Evaluation Project
EMSOP Emergency Medical Services Outcomes Project
NAEMSP National Association of EMS Physicians
NEMSIS National EMS Information System
NICE National Institute for Health and Clinical Excellence
NZGG New Zealand Guidelines Group

AN ASSESSMENT OF EMS AS AN "ESSENTIAL SERVICE"

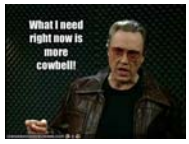
A PUBLIC GOODS ANALYSIS OF EMS SYSTEMS

POLICY IMPLICATIONS OF EMS SYSTEMS AS COMMON GOODS

2014



2016



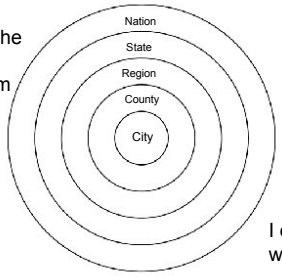
An Information-Driven Future

Renewed Emphasis and Clarity

An Information Culture

Information System Development and Improvement

Do we share the same problem



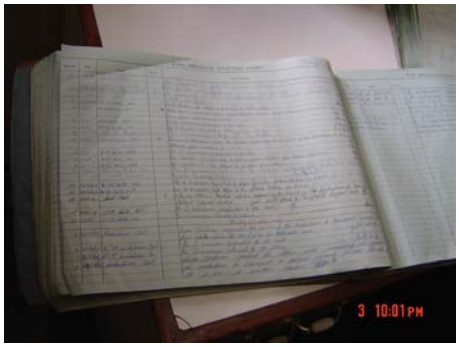
I expect we do

Where We've Been: The History and Background of Data in EMS

Chief among the earliest concerns was responding to highway trauma

Followed by:
-early intervention in cardiac arrest
-"Golden Hour,"
-8-minute response time
-military anti-shock trousers

All were based on limited clinical data and research



EMS Education

"The absence of a national EMS database has been a significant impediment to the structuring of a coherent national EMS education system,"

Mears, Ornato, and Dawson wrote in Prehospital Emergency Care.

Epiphany in Pittsburgh, Pa

For years we said there was a problem with the NRP test (paramedic). Many blaming the format of testing.

epiphany

18 programs - 24% - 6 students or fewer; 70% & 82%

The greater discovery was the issues concerning the EMT level instruction. Resulting in the need to assist more so in that level of programming.

83 EMT centers 51 doing programs - 65% 76%

If we are casual in what we do, there will be casualties …

Patient Outcomes

EMS leaders argued that data could help providers improve patient outcomes by measuring the impact of EMS intervention on “something other than death.”

1991 American Heart Association report *Recommended Guidelines for Uniform Reporting of Data from Out-of-Hospital Cardiac Arrest: The Utstein Style*

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

EMS Research

Academics agreed with clinicians and government officials that data are essential to EMS improvement

“EMS professionals of all levels should hold themselves to higher standards of requiring evidence before implementing new procedures, devices, or drugs.” “There should be standardized data collection methods at local, regional, State, and national levels.” 2001

“Having access to a national EMS database could facilitate research efforts considerably, providing a large sample of standardized data from which to draw. Such a database would be invaluable in the generation of research hypotheses, evaluation of cost–effectiveness, and standardization of data used by researchers.”2002

EMSARN
Emergency Medical Services
Agency Research Network

Reimbursement

As the concept of pay-for-performance took shape in healthcare, EMS leaders believed that data also had the potential to play a significant role in EMS reimbursement decisions, including the national Medicare ambulance fee schedule that was being developed in the late 1990s.

EMS Agency Internal Information Needs

- Clinical Care
- Business Operations
- Field Operations
- Workforce

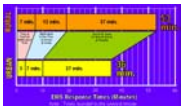
SHRS

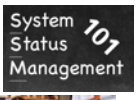
- Business Operations
- Financial Performance
- Patient Billing
- Leadership & Supervision
- Public Relations
- Computer Satisfaction
- Cost Containment




SHRS

- Field Operations
- Communications
- Response Times
- Resource Deployment
- System Status
- Vehicles & Equipment
- Supply Chain Restocking

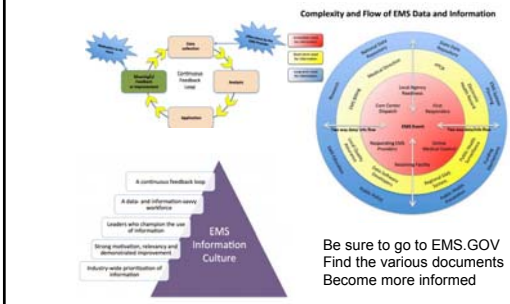



SHRS

- Work Force
- Workforce Planning
- Employee Engagement
- Turnover
- Scheduling
- Field Training
- Employee Performance



Be sure to go to EMS.GOV
Find the various documents
Become more informed

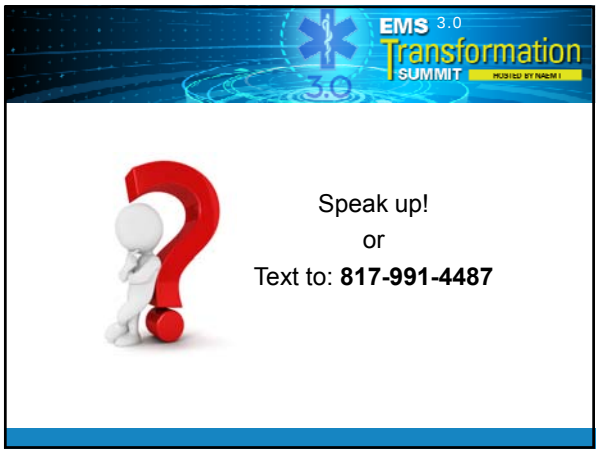
What us Baby Boomers want from you:
- Evidence Based Medicine
- Best Practice
- Outcomes
- Metrics
- Evaluation

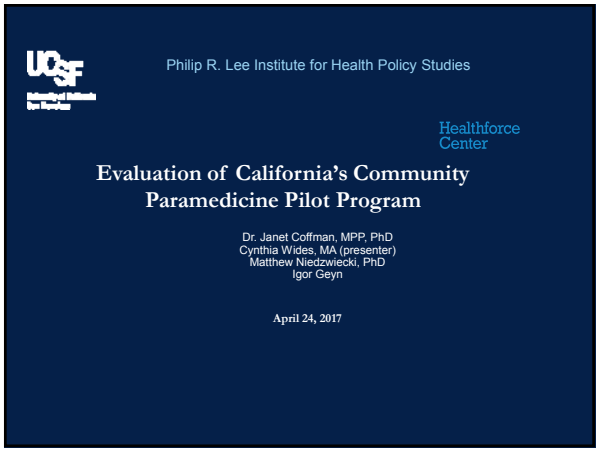
"If A is a success in life,
then A equals x plus y plus z.
Work is x;
y is play; and
z is keeping your mouth shut."
Albert Einstein

Dying in not a technical glitch of the human operating system; it's a feature.
Belinda Luscombe

At its core, health care is a profoundly human endeavor – one person and one family at a time.

EMS cannot and must not lose its fundamental compassion and humanity, even as pressure mounts as the industry radically transforms.





Outline

- Overview of project and evaluation
- Findings
  - Safety
  - Effectiveness
  - Cost and savings
- Conclusion

Overview of Project and Evaluation

4/24/2017

Community Paramedicine Concepts

In June, 2015, 10 EMS agencies in California began testing 6 concepts in Community Paramedicine under the Health Workforce Pilot Projects program:

- Post-hospital discharge 30 day follow-up
- Frequent EMS user
- Directly Observed Therapy for Tuberculosis
- Home hospice support
- Alternate destination - mental health crisis center
- Alternate destination – medical care

184

Evaluation

- Data reported by pilot sites on:
  - Numbers of patients enrolled and their characteristics
  - Provision of CP services/patient outcomes
  - Cost of providing CP services and ambulance transports
- Existing sources of data on cost of ED visits and hospital admissions and historical readmission rates
- Interviews and conference calls with EMS project manager, pilot project leaders, CPs, and partners to provide context for quantitative data

185 4/24/2017

Findings – Patient Enrollment

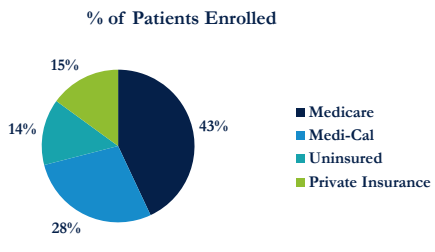
4/24/2017

Cumulative Patients Enrolled by Concept Through September 2016

Concept	# enrolled
Post-Discharge 30 day Follow-Up	922
Frequent EMS Users	77
Directly Observed Therapy for Tuberculosis	29
Hospice	226
Alternate Destination – Mental Health	169
Alternate Destination – Medical Care	39
All Projects	**1,462**

187 4/24/2017

Enrolled Patients' Payer Types – Through September 2016



188 4/24/2017

Findings - Safety

4/24/2017

No Adverse Outcomes

- No enrolled patients enrolled experienced adverse health outcomes
- Improved patient safety:
  - Medication reconciliation and home safety inspections
  - Referrals to housing, social services, and behavioral health care improved patients' well-being
  - In the alternate destination – mental health project, having paramedics transport directly to mental health crisis center enabled law enforcement officers to focus on law enforcement duties
- Rerouting and secondary transports due to non-life threatening condition – 9 pts in Alt. Dest.-Behavior & 11 pts in Alt. Dest.-Medical

170 4/24/2017

Effectiveness

4/24/2017

Post-Discharge Reduced Inpatient Readmissions

Post-discharge projects achieved statistically significant reductions in 30-day readmission rates.

- 4 (of 5) projects reduced readmissions for heart failure. The exception is due less intensive services in HF intervention.
- 3 (of 3) reduced readmissions for acute myocardial infarction (i.e., heart attack)
- 2 (of 2) reduced readmissions for chronic obstructive pulmonary disease
- 1 (of 1) reduced readmissions for pneumonia

Evidence of Efficacy in Other Projects

Projects reduced ambulance transports and ED visits for:

- Frequent EMS users (focus on high volume callers)
- Hospice patients (pre-pilot 80%/post-pilot 36%)
- Persons with mental health needs (pre-pilot 100%/ post-pilot 5%)
- TB project increased medication adherence (6% missed DOTs by CHWs/0.1% missed DOTs by CPs)

UCSF

Cost and Savings

4/24/2017

Cost

- Monthly expenses were highly variable by:
  - program type,
  - provider type (public vs. private), and
  - full-time vs part-time use of CPs.

Savings

- Reductions in ambulance transports, ED visits, and inpatient admissions yielded savings for health plans & hospitals
  - Savings ranged from $188 to $1,754 per patient per month
  - Medicare & Medi-Cal realized savings based on project enrollment
  - Post-discharge projects reduced risk of readmission penalties hospital with Medicare patients
  - Frequent EMS user projects reduced uncompensated care provided by hospitals to uninsured persons

UCSF

Conclusion

Conclusion

- Specially-trained paramedics can provide services beyond their traditional and current statutory scope of practice in California
- Projects have improved patients' well-being
- No adverse outcomes for patients
- No other health professionals displaced
- In most cases, yielded savings for health plans and hospitals

Conclusion (cont'd.)

- Post-discharge, frequent EMS user, Tuberculosis, hospice, and alternate destination – mental health projects are safe and effective.
- More data are needed to make conclusions about the alternate destination – medical care projects despite paramedics' ability to triage patients accurately due to
  - The limited number of patients enrolled
  - The number of patients rerouted or transferred to an ED.

Through its singular focus on health, UCSF is leading revolutions in health.

UCSF
University of California San Francisco

Thanks are extended to the pilot sites, project participants, the California Health Care Foundation, the California Emergency Medical Services Authority, and the California Office of Statewide Health Planning and Development.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Transformation
SUMMIT
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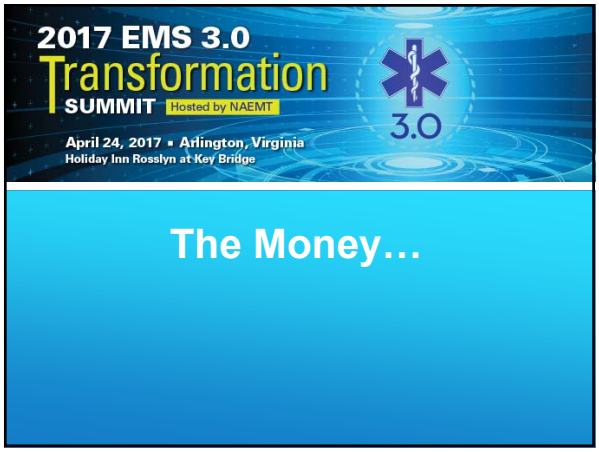
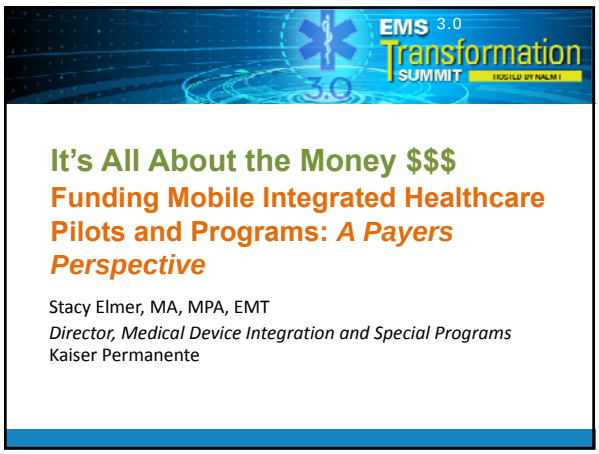
Further, Together

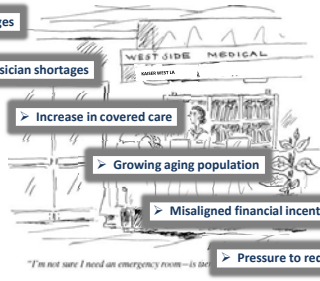

2017 EMS 3.0
Transformation
SUMMIT
Hosted by NAEMT
April 24, 2017 ▪ Arlington, Virginia
Holiday Inn Rosslyn at Key Bridge
3.0
The Money…


EMS 3.0
Transformation
SUMMIT
It's All About the Money $$$
Funding Mobile Integrated Healthcare Pilots and Programs: A Payers Perspective
Stacy Elmer, MA, MPA, EMT
Director, Medical Device Integration and Special Programs
Kaiser Permanente

Why Mobile Integrated Healthcare?

EMS 3.0 Transformation SUMMIT

- Nursing shortages
- Physician shortages
- Increase in covered care
- Growing aging population
- Misaligned financial incentives
- Pressure to reduce health care costs



Why Mobile Integrated Healthcare?

EMS 3.0 Transformation SUMMIT

Triple Aim Impact

Individual Care
Prevention & most appropriate care providers

Alternative Destination Transport

Treat & Release/ Refer

Frequent 911/ED Utilizers

Cost of Care
Avoided ambulance rides & ED visits

Post-Discharge Follow Up

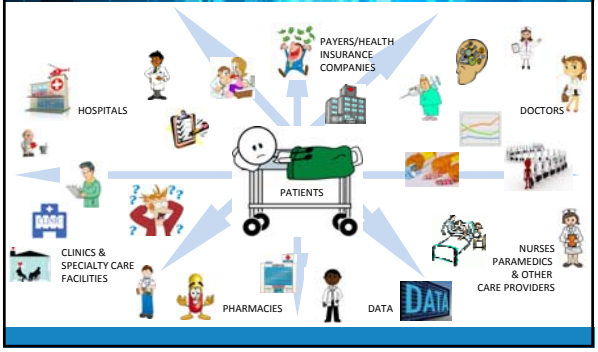
Alternative Destination Mental Health

Hospice Support

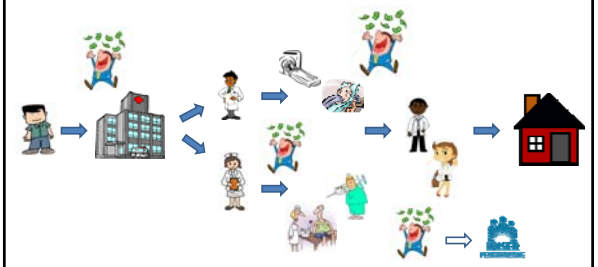
Population Health
Connecting to primary care & social services

Why Systems Matter

EMS 3.0 Transformation SUMMIT

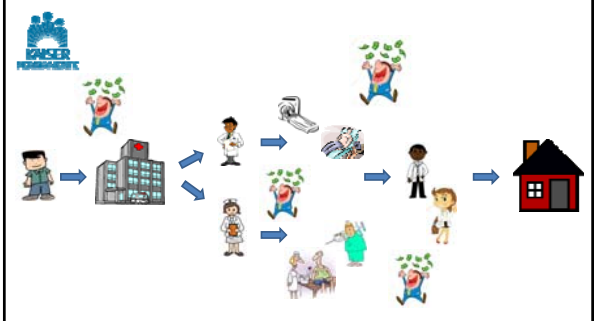


Payment in Non-Integrated Systems



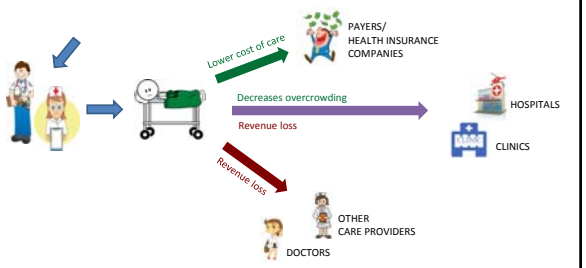
Integrated Systems

Payments in Integrated Systems



Value in Non-Integrated Systems

EMS 3.0 Transformation SUMMIT



Value in Integrated Systems

EMS 3.0 Transformation SUMMIT

KAISER PERMANENTE

PAYERS/
HEALTH
INSURANCE
COMPANIES

HOSPITALS

CLINICS

DOCTORS

OTHER
CARE
PROVIDERS

- Increases opportunities for improved patient care
- Creates cost savings to the system
- Diminishes overcrowding in EDs & urgent care

Kaiser and Mobile Integrated Healthcare

EMS 3.0 Transformation SUMMIT

911 Response-Based Models

- Alternative Destination Transport
- Treat & Release/Refer

KAISER PERMANENTE

- Pre-scheduled visits

Kaiser and Mobile Integrated Healthcare

EMS 3.0 Transformation SUMMIT

Kaiser Based EMS Models

- Post-discharge follow-up
- Management of chronic conditions
- Mental & behavioral health

The First Value Proposition

EMS 3.0 Transformation SUMMIT

$$$

KAISER PERMANENTE

- Kaiser + other payers

- Kaiser only

The Second Value Proposition

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Know the problem you are trying to solve

The Second Value Proposition

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High utilizers of 911

ED high utilizers

ED high cost utilizers

Outside medical expenses

Data as We Typically Know It

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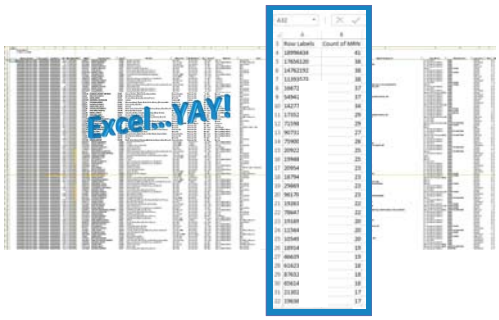
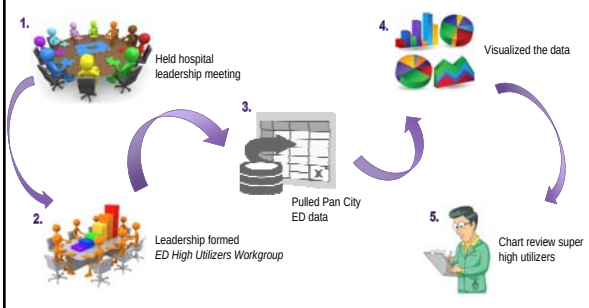


KP MIH Pilot Process

EMS 3.0 Transformation SUMMIT



KP MIH Pilot Process

EMS 3.0 Transformation SUMMIT

1. ED High Utilizers Workgroup – Meeting 1
   - Identified the problem
   - Socialized the data analysis process – introduced Tableau

2. ED High Utilizers Workgroup – Meeting 2
   - Reviewed data analysis
   - Narrowed down subgroups to target

3. Chart Review Party!!!!

KP MIH Pilot Process

EMS 3.0 Transformation SUMMIT

4. ED High Utilizers Workgroup – Meeting 3
   - Review chart review outcomes
   - Finalize subgroups to target
   - Map current KP assets and interventions available to address subgroups problems – identify gaps in the continuum for these members

5. Utilize video ethnography capability to talk with members in the identified subgroups about their ED utilization

6. ED High Utilizers Workgroup – Meeting 4
   - Review video ethnography
   - Empathy map members in targeted subgroups
   - Identify quality improvement needs in existing assets
   - Develop options for solutions to address gaps

KP MIH Pilot Process

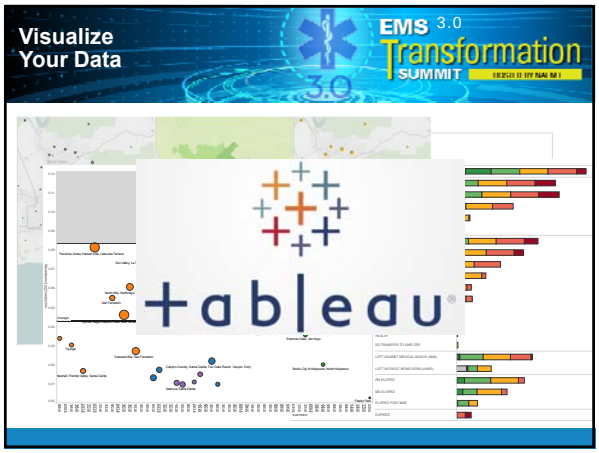
EMS 3.0 Transformation SUMMIT

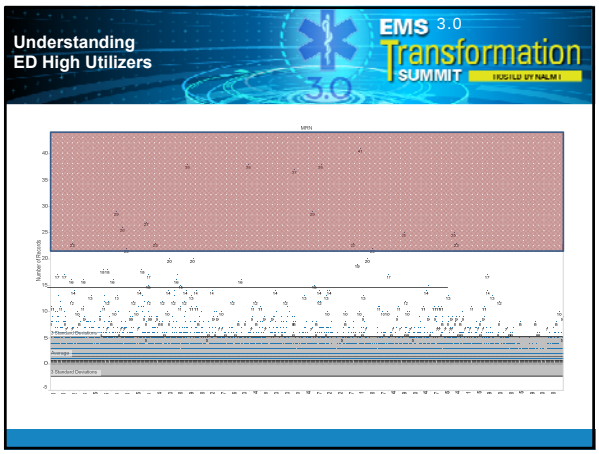
7. Validate proposed solutions with members

8. Convene ED High Utilizers Workgroup – Meeting 5
   - Review member input
   - Design plan for operationalizing solutions

9. Present proposal to hospital
10. Present proposal to regional leadership
11. Implement pilot program


Data as We Typically Know It
EMS 3.0 Transformation SUMMIT
Excel... YAY!


Visualize Your Data
EMS 3.0 Transformation SUMMIT
+ableau


Understanding ED High Utilizers
EMS 3.0 Transformation SUMMIT

Data as We Typically Know It

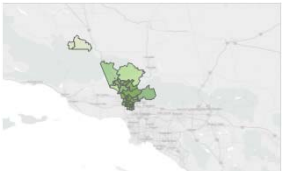
Understanding ED High Utilizers

We started with all ED encounters that occurred at the Panorama City Medical Center from July 2014 – June 2015 (one calendar year).
62,152 encounters

Kept only the ED encounters attributable to **patients who live in the Panorama City Service Area.**

Before **62,152 encounters**

After **51,348 encounters**



Understanding ED High Utilizers

Kept only the ED encounters attributable to patients who **live in the San Fernando Valley** subregion of the Panorama City Service Area.

Before **51,348 encounters**

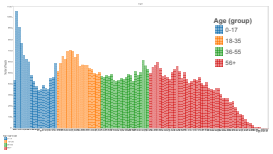
After **45,613 encounters**

Understanding ED High Utilizers

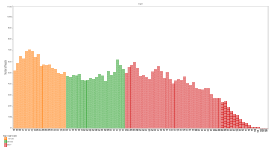
EMS 3.0 Transformation SUMMIT

Kept only the ED encounters attributable to patients who live in the San Fernando Valley subregion of the Panorama City Service Area who are **age 18 or older.**

Before **45,613 encounters**



After **35,987 encounters**

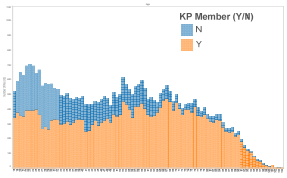


Understanding ED High Utilizers

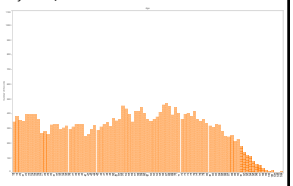
EMS 3.0 Transformation SUMMIT

Kept only the ED encounters attributable to patients who live in the San Fernando Valley subregion of the Panorama City Service Area who are age 18 or older and are **KP members.**

Before **35,987 encounters**



After **26,102 encounters**

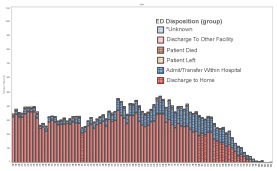


Understanding ED High Utilizers

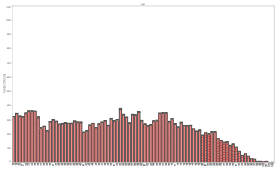
EMS 3.0 Transformation SUMMIT

Kept only the ED encounters attributable to patients who live in the San Fernando Valley subregion of the Panorama City Service Area who are age 18 or older, are KP members, and were **either discharged to home or otherwise left without being admitted.**

Before **26,102 encounters**



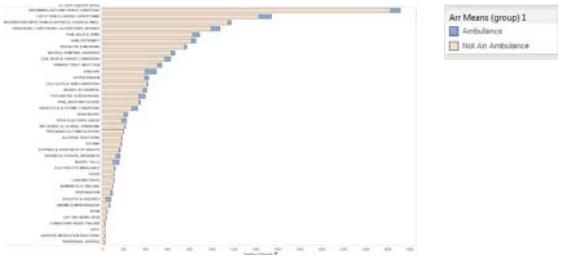
After **20,501 encounters**



Understanding ED High Utilizers

EMS 3.0 Transformation SUMMIT

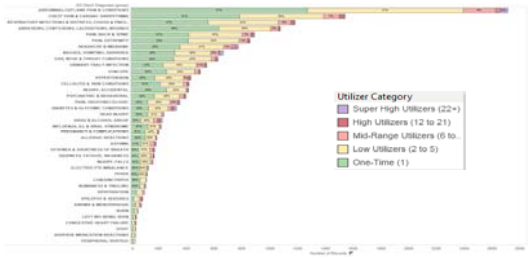
Among these 20,501 encounters, these are the top discharge diagnosis categories, **stratified by whether or not the individual arrived in an ambulance.**



Understanding ED High Utilizers

EMS 3.0 Transformation SUMMIT

Among these 20,501 encounters, these are the top discharge diagnosis categories, **stratified by whether or not the encounter is from a "high utilizer".**



Understanding ED High Utilizers

EMS 3.0 Transformation SUMMIT

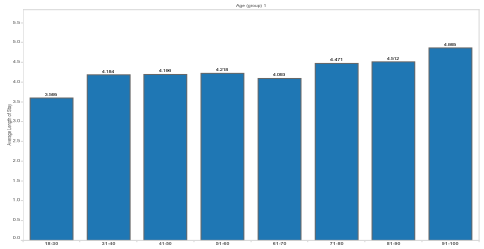
Among the target subset (San Fernando Valley, Panorama City Members, Age 18+)

	Unique Patients	# Encounters
1-time utilizers	9,759	9,759
Low Utilizers (2-5 times)	4,155	8,524
Moderate-to-High Utilizers (6-21 times)	362	2,993
Super High Utilizers (22+ times)	10	225

Understanding ED High Utilizers

EMS 3.0 Transformation SUMMIT

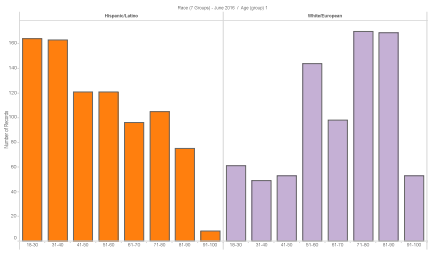
Dead ends - older patients would have longer ED stays since they were more complex, but that didn't turn out to be a huge effect. Younger adult patients had much shorter lengths of stays. What conclusion to draw of this? It was uncertain.



Understanding ED High Utilizers

EMS 3.0 Transformation SUMMIT

Nice to know - we looked at race/ethnicity of ED utilizers by age, and noted that it reflects the changing demographic of Panorama City's membership – younger patients are more likely to be Hispanic, older patients are more likely to be White.

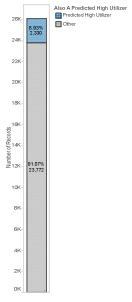


EMS 3.0 Transformation SUMMIT

Cost Analysis – Predicted High Utilizers

8.9% of ED encounters were due to Predicted High Utilizers.

1 out of every 20 of this subgroup is predicted to be a member who might spend close to $60,000 per year (compared to the average member yearly cost of $5,300).



Closing Thought

THANK YOU!

If a dog wore pants would he wear them like this or like this?

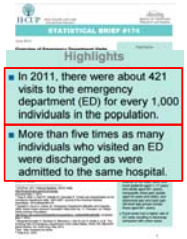
Stacy.Elmer@kp.org

Attention Please!

- $10,372 per capita health expenditures (2016)!!
  - 18.1% GDP
- Due in large part to ***quantity-based*** payments

http://content.healthaffairs.org/content/early/2017/02/14/hlthaff.2016.1627.full

EMS 3.0 Transformation SUMMIT



131 Million ED Visits (2011)

https://www.hcup-us.ahrq.gov/reports/statbriefs/sb174-Emergency-Department-Visits-Overview.pdf

EMS 3.0 Transformation SUMMIT

YEAR	% OF ED PATIENTS ARRIVING BY EMS	OVERALL ED ADMISSION RATE (%)	% OF EMS ARRIVALS WHO ARE ADMITTED	% OF WALK-IN PATIENTS ADMITTED
2013	17	16.5	39	12.5
2012	16	16.5	39	12.2
2011	17	17.6	42	12.6
2010	16	18.0	43	13.2
2009	16	17.3	43	12.4
2008	17	16.6	43	11.2
2007–2004	15	16.3	38	12.5

http://www.acepnow.com/article/emergency-medical-services-arrivals-admission-rates-emergency-department-analyzed/

EMS 3.0 Transformation SUMMIT

ED Expenditure Analysis

All ED Visits (2011) (2)	$	131,000,000
Average Expenditure (3)	$	969
ED Expenditure	**$**	**126,939,000,000**

% EMS ED arrival (1)		17%
Patient Arrivals		22,270,000
Average Expenditure (3)	$	969
EMS ED Expenditure	**$**	**21,579,630,000**

% EMS ED Arrivals Discharged		61%
Patients Treated & Streeted		13,584,700
Average Expenditure (3)	$	969
Total	**$**	**13,163,574,300**

% of EMS patients Alt. Dest.		**15%**
ED Patients Referred		**2,037,705**
Average Expenditure (3)	$	969
Potential ED Savings	**$**	**1,974,536,145**

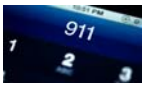
References:
1. http://www.acepnow.com/article/emergency-medical-services-arrivals-admission-rates-emergency-department-analyzed/
2. https://www.hcup-us.ahrq.gov/reports/statbriefs/sb174-Emergency-Department-Visits-Overview.pdf
3. http://www.cdc.gov/nchs/data/hus/hus13.pdf

EMS Economics 1.0

- You call
- We haul
- That's all

EMS Economics 1.0

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



EMS Economics 2.0

- Movement toward alternate payment models
  - Mobile Integrated Healthcare
    - Enrollment fees
    - Patient contact fees
    - Limited capitation








EMS Economics 3.0

- $ for response vs. transport
- Population based payments
  - PM/PM
- Shared savings models
  - Downstream savings for patient navigation

Poll: What is your _____ cost….

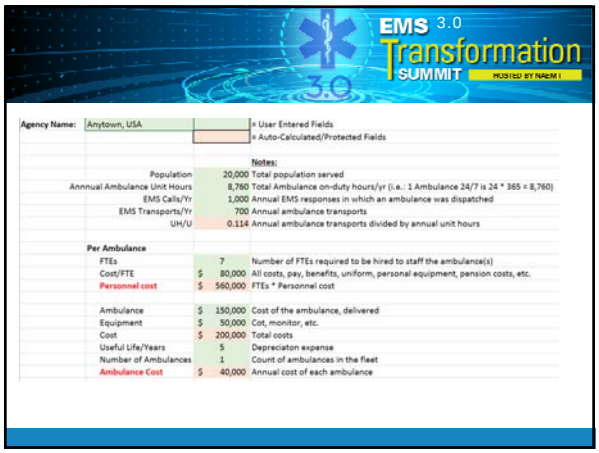
- Ambulance
  - Annual
  - Unit Hour
  - Response
  - Transport
- Engine
  - Annual
  - Unit Hour
  - Response

Cost of Service - EMS

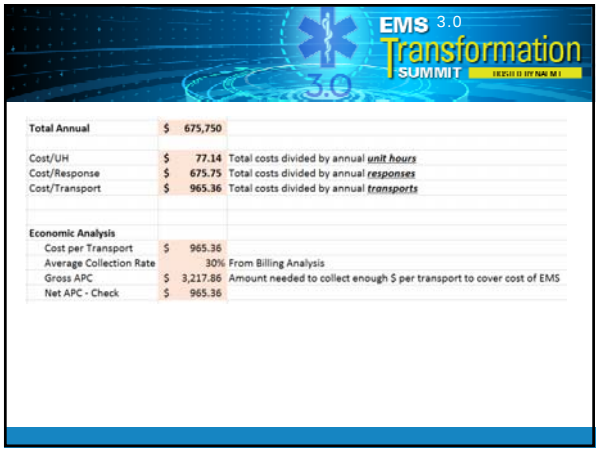
- If you were to STOP providing EMS, what costs would you eliminate?
  - Personnel
  - Ambulances
    - W/equipment
  - Ambulance supervision
  - EMT/Paramedic stipends
  - EMS Training costs
  - 1st Response costs
    - Fuel, medical supplies, wear and tear

Revenue Analysis

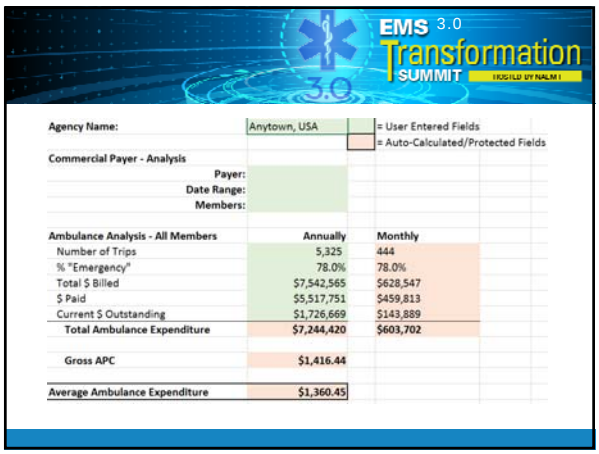
- Poll –
  - What is your average patient charge?
  - What is your amount collected per transport?
  - What is your collection rate?
  - Who is your largest payer
    - Billed?
    - Collected?



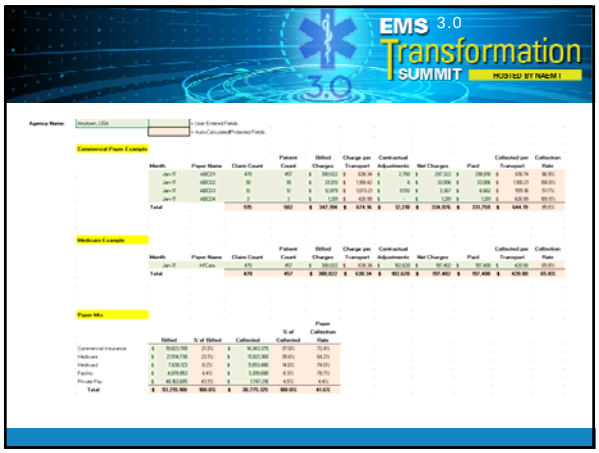
Agency Name:	Anytown, USA		= User Entered Fields
			= Auto-Calculated/Protected Fields
			Notes:
Population		20,000	Total population served
Annnual Ambulance Unit Hours		8,760	Total Ambulance on-duty hours/yr (i.e.: 1 Ambulance 24/7 is 24 * 365 = 8,760)
EMS Calls/Yr		1,000	Annual EMS responses in which an ambulance was dispatched
EMS Transports/Yr		700	Annual ambulance transports
UH/U		0.114	Annual ambulance transports divided by annual unit hours
Per Ambulance			
FTEs		7	Number of FTEs required to be hired to staff the ambulance(s)
Cost/FTE	$	80,000	All costs, pay, benefits, uniform, personal equipment, pension costs, etc.
Personnel cost	$	560,000	FTEs * Personnel cost
Ambulance	$	150,000	Cost of the ambulance, delivered
Equipment	$	50,000	Cot, monitor, etc.
Cost	$	200,000	Total costs
Useful Life/Years		5	Depreciaton expense
Number of Ambulances		1	Count of ambulances in the fleet
Ambulance Cost	$	40,000	Annual cost of each ambulance



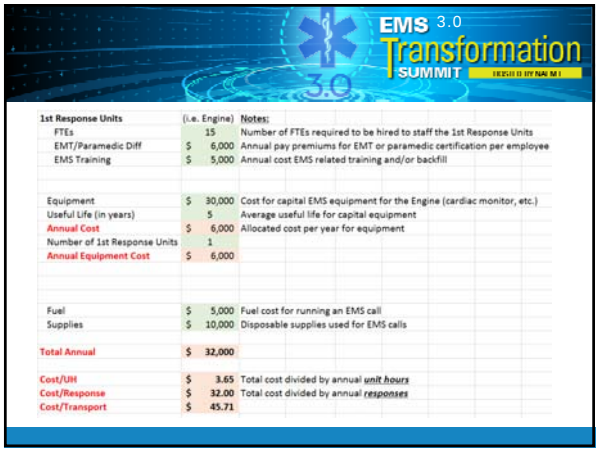
Total Annual	$	675,750	
Cost/UH	$	77.14	Total costs divided by annual ***unit hours***
Cost/Response	$	675.75	Total costs divided by annual ***responses***
Cost/Transport	$	965.36	Total costs divided by annual ***transports***
Economic Analysis			
Cost per Transport	$	965.36	
Average Collection Rate		30%	From Billing Analysis
Gross APC	$	3,217.86	Amount needed to collect enough $ per transport to cover cost of EMS
Net APC - Check	$	965.36	



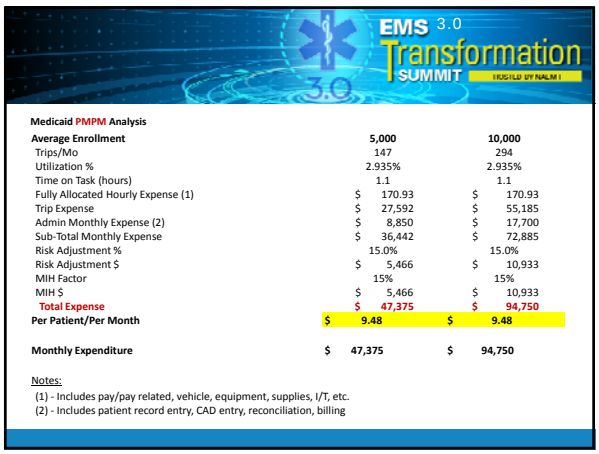
Agency Name:	Anytown, USA		= User Entered Fields
			= Auto-Calculated/Protected Fields
Commercial Payer - Analysis			
Payer:			
Date Range:			
Members:			
Ambulance Analysis - All Members	Annually	Monthly	
Number of Trips	5,325	444	
% "Emergency"	78.0%	78.0%	
Total $ Billed	$7,542,565	$628,547	
$ Paid	$5,517,751	$459,813	
Current $ Outstanding	$1,726,669	$143,889	
Total Ambulance Expenditure	$7,244,420	$603,702	
Gross APC	$1,416.44		
Average Ambulance Expenditure	$1,360.45		



Agency Name:	Anytown, USA												
	= User Entered Fields												
	= Auto Calculated/Protected Fields												
Commercial Payer Example													
Month	Payer Name	Claim Count	Patient Count	Billed Charges	Charge per Transport	Contractual Adjustments	Net Charges	Paid	Collected per Transport	Collection Rate
Jan-17	ABC01	470	457	$ 300,022	$ 638.34	$ 2,700	$ 297,322	$ 290,856	$ 618.74	96.9%
Jan-17	ABC02	30	30	$ 33,000	$ 1,100.42	$ 6	$ 33,006	$ 33,006	$ 1,100.21	100.0%
Jan-17	ABC03	10	10	$ 10,876	$ 1,073.21	$ 950	$ 3,367	$ 6,662	$ 555.16	59.1%
Jan-17	ABC04	3	3	$ 1,200	$ 626.78	$ -	$ 1,200	$ 1,200	$ 626.78	100.0%
Total		515	502	$ 347,594	$ 674.76	$ 12,230	$ 334,976	$ 331,759	$ 644.19	95.6%
Medicare Example										
Month	Payer Name	Claim Count	Patient Count	Billed Charges	Charge per Transport	Contractual Adjustments	Net Charges	Paid	Collected per Transport	Collection Rate
Jan-17	MCare	470	457	$ 300,022	$ 638.34	$ 902,620	$ 597,402	$ 597,400	$ 638.98	99.8%
Total		470	457	$ 300,022	$ 638.34	$ 902,620	$ 597,402	$ 597,400	$ 638.98	99.8%
Payer Mix										
	Billed	% of Billed	Collected	% of Collected	Payer Collection Rate					
Commercial Insurance	$ 70,823,789	25.0%	$ 34,343,375	37.0%	72.4%					
Medicare	$ 19,794,758	23.5%	$ 19,821,360	38.6%	64.2%					
Medicaid	$ 7,638,123	8.2%	$ 5,951,486	14.6%	74.5%					
Facility	$ 4,070,853	4.4%	$ 2,200,688	6.3%	78.7%					
Private Pay	$ 41,911,605	43.5%	$ 1,747,276	4.5%	4.4%					
Total	$ 93,219,300	100.0%	$ 38,775,525	100.0%	41.6%					



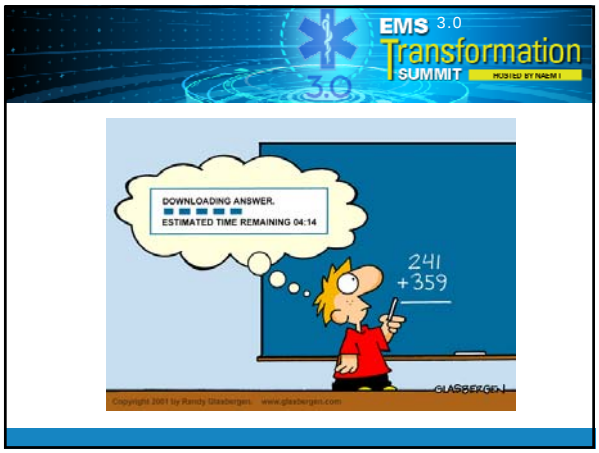
1st Response Units	(i.e. Engine)	Notes:
FTEs	15	Number of FTEs required to be hired to staff the 1st Response Units
EMT/Paramedic Diff	$ 6,000	Annual pay premiums for EMT or paramedic certification per employee
EMS Training	$ 5,000	Annual cost EMS related training and/or backfill
Equipment	$ 30,000	Cost for capital EMS equipment for the Engine (cardiac monitor, etc.)
Useful Life (in years)	5	Average useful life for capital equipment
Annual Cost	$ 6,000	Allocated cost per year for equipment
Number of 1st Response Units	1	
Annual Equipment Cost	$ 6,000	
Fuel	$ 5,000	Fuel cost for running an EMS call
Supplies	$ 10,000	Disposable supplies used for EMS calls
Total Annual	$ 32,000	
Cost/UH	$ 3.65	Total cost divided by annual ***unit hours***
Cost/Response	$ 32.00	Total cost divided by annual ***responses***
Cost/Transport	$ 45.71	

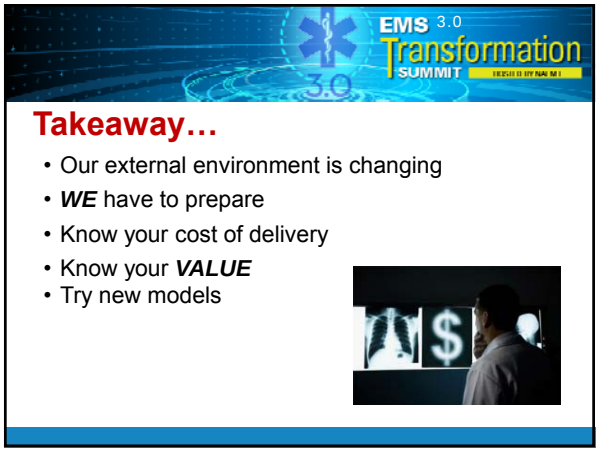


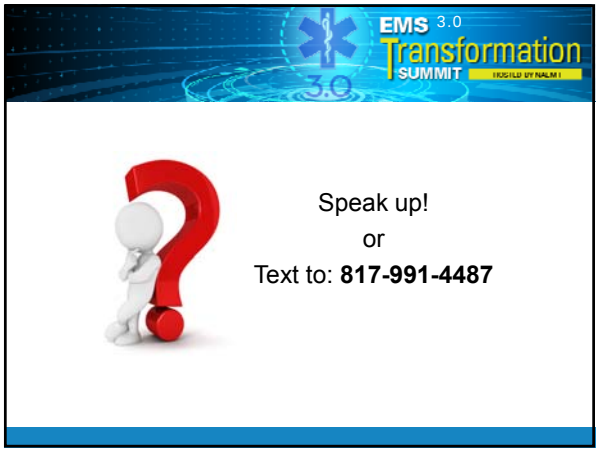
Medicaid PMPM Analysis

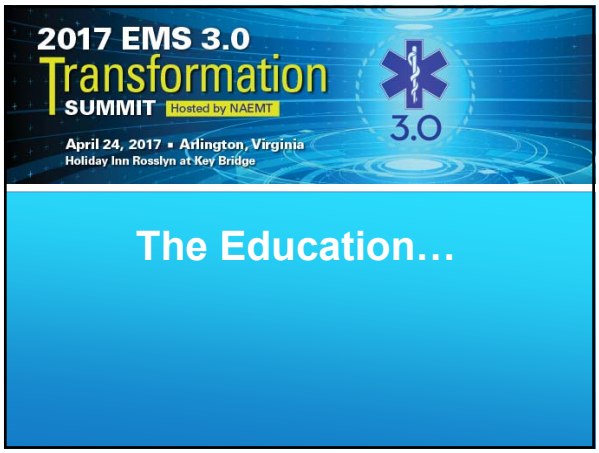
Average Enrollment	**5,000**	**10,000**
Trips/Mo	147	294
Utilization %	2.935%	2.935%
Time on Task (hours)	1.1	1.1
Fully Allocated Hourly Expense (1)	$ 170.93	$ 170.93
Trip Expense	$ 27,592	$ 55,185
Admin Monthly Expense (2)	$ 8,850	$ 17,700
Sub-Total Monthly Expense	$ 36,442	$ 72,885
Risk Adjustment %	15.0%	15.0%
Risk Adjustment $	$ 5,466	$ 10,933
MIH Factor	15%	15%
MIH $	$ 5,466	$ 10,933
Total Expense	**$ 47,375**	**$ 94,750**
Per Patient/Per Month	**$ 9.48**	**$ 9.48**
Monthly Expenditure	**$ 47,375**	**$ 94,750**

Notes:
(1) - Includes pay/pay related, vehicle, equipment, supplies, I/T, etc.
(2) - Includes patient record entry, CAD entry, reconciliation, billing

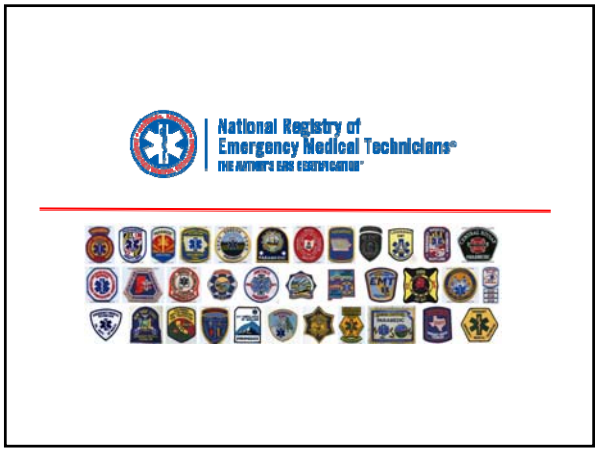

EMS 3.0
Transformation
SUMMIT
DOWNLOADING ANSWER.
ESTIMATED TIME REMAINING 04:14
241
+359


EMS 3.0
Transformation
SUMMIT
Takeaway…
• Our external environment is changing
• WE have to prepare
• Know your cost of delivery
• Know your VALUE
• Try new models


EMS 3.0
Transformation
SUMMIT
Speak up!
or
Text to: 817-991-4487


2017 EMS 3.0
Transformation
SUMMIT
Hosted by NAEMT
April 24, 2017 ▪ Arlington, Virginia
Holiday Inn Rosslyn at Key Bridge
3.0
The Education…


THE IMPORTANCE OF CREDENTIALING
JOHN R. CLARK, JD, MBA, NRP, FP-C, CCP-C, CMTE
CHIEF OPERATING OFFICER
INTERNATIONAL BOARD OF SPECIALTY CERTIFICATION [USA]


National Registry of
Emergency Medical Technicians

WHY SPECIALTY CERTIFICATION?

- SPECIALTY CERTIFICATION allows PATIENTS to confidently place their TRUST in their healthcare providers.
- Demonstrates a MASTERY LEVEL OF PARAMEDIC PRACTICE coupled with entry-level competency over the knowledge, skills and abilities contained within a SPECIALIZED AREA OF PRACTICE.
- Exhibits a PROFESSIONAL commitment to the PUBLIC, EMPLOYERS and PEERS.

WHAT IS SPECIALTY CERTIFICATION

- The process of validating KNOWLEDGE and SKILLS of a provider.
- Follows a STANDARDIZED PROCESS involving data collection, primary source verification and committee review.
- Assurance of a professional's MERIT and EXPERIENCE.
- EXAMINATIONS are not meant to test entry-level knowledge, but rather to VALIDATE the EXPERIENCED PARAMEDICS' skills and knowledge.

MAJOR CREDENTIALING PHASES

- Qualification
- Application
- Examination eligibility
- Examination
- Certification

PRACTICE ANALYSIS

- SURVEY practicing professionals regarding the COMPONENTS of their PRACTICE.
- CONTENT VALIDATION studies are conducted for each exam EVERY 3–5 YEARS.

DETAILED CONTENT OUTLINE or BLUEPRINT

- Based on the results of these studies, examination BLUEPRINTS are created that capture the PRACTICE AREAS that make up the specialty.
- QUESTIONS are written for the examinations to MATCH the blueprint.
- This process insures that the exams reflect the STATE OF PRACTICE.

GUIDELINES

- There is NOT a prescribed education program tied to any examination.
- Examinations measure a UNIQUE DOMAIN BEYOND ENTRY-LEVEL CERTIFICATION or licensure.

MITGATING THE LEGAL RISK

- The LEGAL RISK to the employer and the medical director INCREASES EXPONENTIALLY without validation of clinical competency.
- The exam development processes and the exam evaluation procedures are PSYCHOMETRICALLY SOUND and LEGALLY DEFENSIBLE
- This INSURES that the examinations are a TRUE and ACCURATE measure of knowledge, skills and abilities.

HISTORICAL STATE

The US EMS system started with regional schemes and moved towards a national model.

- TECHNICIANS functioning under a physician license.
- In the shadow of NURSING.
- FRAGMENTED regulatory schemes from state to state.
- Multiple designations and ALPHABET SOUP.

VERSION 3.0

Standardization of EMS nomenclature.

The creation of the US COLLEGE OF PARAMEDICS as the independent professional body for EMS providers in the United States.

- Must be an INDEPENDENT professional body and comes FROM THE COMMUNITY.
- For SPECIALIZED AREAS OF PRACTICE, candidates need more than certificate education.

VERSION 3.0 – SELF GOVERANCE

As an occupational group evolves over time and comes to develop a specialized body of knowledge; members of the group become experts. Due to this knowledge being so specialized, the Government is presented with the difficult and expensive task of determining and monitoring standards of practice for the profession in question. The thought is therefore that, *members of a profession are in the best position to set standards and to evaluate whether they have been met*.

Randall, G. E. (2000). Understanding Professional Self-Regulation from http://pam.in1touch.org/uploaded/web/pdf/Understanding%20Professional%20Self-Regulation.pdf

IBSC INTERNATIONAL BOARD OF SPECIALTY CERTIFICATION

IBSC

jclark@bcctpc.org
@clarkjrc

"In times of rapid change, experience could be your worst enemy."

J. Paul Getty

The Greatest Threat To Future Success… Is Prior Success

Jeffrey Romoff

Major Marketplace Changes Underway

Health Care Spending On Unsustainable Path

Science Will Radically Transform Patient Care

Consumerization of Health Care

Health Care Spending On Unsustainable Path

Approaching 20% of U. S. economy

Government/subsidized care (Medicare, Medicaid, Health Exchange) majority of provider revenue

Growth in high deductible plans – shifting cost

Industry consolidation

Factors Affecting EMS Education

Continued escalation of cost of the education in the EMS domain is a concern

Cost of products, services and personnel required to provide instruction pushes up cost that must be transferred to the student

Factors Affecting EMS Education

Trying to keep up with the others…

Simulation Center

Accreditation Cost

Stoy – Disclosure (if I haven't already done so…)

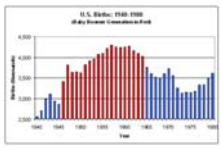
Science Will Radically Transform Patient Care

Unlocking insights:

Aging

Immunology

Genetics



We are living longer, but for some, not necessarily healthier lives

Consumerization of Health Care

Consumers make choices based upon price, service and convenience

Need to ensure connectedness with "stickiness"

Affordable Care Act – 20+ million newly insured

We Need to Stop Talking and Thinking ONLY in the EMS Domain

Retailers Thought Their Competition Was Other Retail Entities – They Were Wrong

amazon

Deconstructing the Present to Create the Future of EMS Education

If We Are NOT Initiating and Embracing Innovative Disruption, We Will Be Its Victim

We Must Deconstruct and Reconstruct To Create The Future

Always Seeking Breakthroughs and Innovation

Emergency Medical Service
Education Trust
(EMSET)

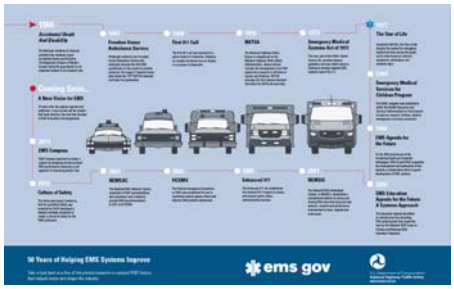
Consortium of Academic Program in
Emergency Medical Services
(CAPEMS)

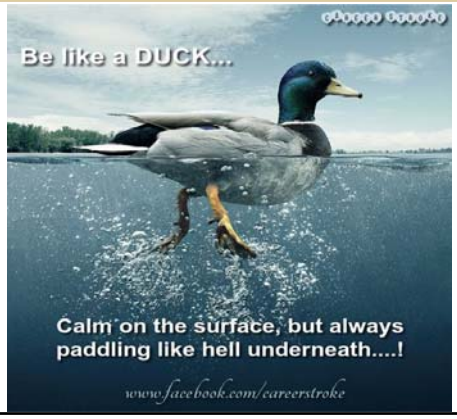
Committee on Accreditation
of Educational Programs for the
Emergency Medical Services Professions

CoAEMSP
Accreditation is credible education

Commission on Accreditation
of Allied Health Education Programs

CoAEMSP is here – not the future of MIH/CP



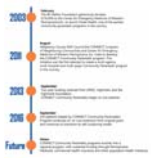


Curricula Alteration

EM 1250 – Introduction to Community Health
2 credits

EM 1251 – Mobile Integrated Health Care
2 credits

CONNECT COMMUNITY PARAMEDIC



Nursing Alternative

Students positioned to take 24 of their senior credits in Nursing or other areas

One year or three terms to complete Accelerated BSN

Can move from this to Doctorate of Nurse Practitioner Program

Community Engagement Center (CEC)

EMT Students

Paramedic Students

Senior EM Students

A school-wide effort

Alumni and others

Moving Health Care to the Under Served

Operation Safety Net

Decades of effort by Dr. Jim Withers

David Gloss EM Graduate of 2015

Internships with our senior students

Protocols
Medication List
Nation Curricula
Conference

"No idea for a new growth business ever comes fully shaped. When it emerges, it's half-baked, and it then goes through a process of becoming fully shaped."

- Clayton M. Christensen: American author

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Speak up!

or

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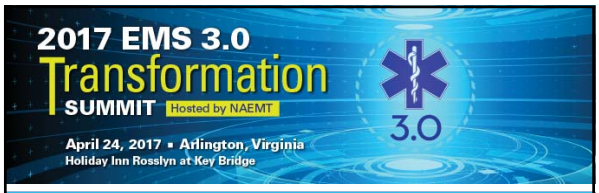


The Politics…

Politics & Washington, An Update from the Battlefield

April 24, 2017

As of January 20, 2017, the Republican Party Has:

1) The Presidency.
2) A majority of the House of Representatives.
3) A majority of the Senate.
4) Almost two-thirds of all governorships.
5) Total control of the statehouses in almost two-thirds of all the states.

And, as of April 7, Republicans added:

6) A majority of the Supreme Court (5-4)

The above has never happened before in American history.

KIMBELL 279

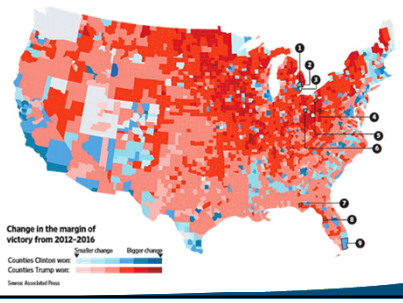
A Historic Victory

- Trump won 306 electoral votes, the most for a Republican since George H.W. Bush in 1988
- Trump won over 2,600 counties nationwide, the most since Reagan in 1984
- Trump won over 62 million votes in the popular vote, the highest all-time for a Republican nominee
- Trump won over 200 counties nationwide that Obama won in 2012

KIMBELL 280

A Changing Portrait of Red and Blue

Hillary Clinton drew heavy support from urban areas and some Hispanic parts of the country, but was overpowered by Donald Trump's stronger showing in small and rural communities. She was also hurt by declining vote totals among African Americans.



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Republicans Maintain Majority of U.S. House

Democrats 194 (+6) Republicans 241 (-6)

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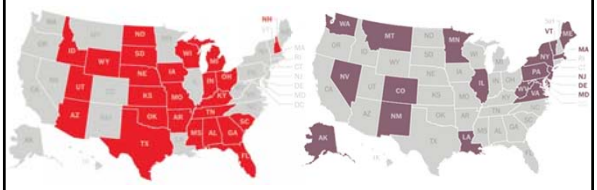
Republicans Win Big at the State Level

Republicans now control 69 of 99 state legislative chambers and the governor's mansion in 33 states

25 states have both a Republican governor and Republican state legislature

20 states have some form of Republican control (either one or both chambers, or governor)



Source: The Washington Post

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America is Seeing Red

State & Federal Breakdown of Legislators and Executives by Party

		2009	2017	Dem Change
State House	Republicans	2,334	3,052	-735
	Democrats	3,058	2,323	
State Senate	Republicans	889	1,151	-218
	Democrats	1,024	806	
Governors	Republicans	22	33	-12
	Democrats	28	16	
Attorneys General	Republicans	18	29	-15
	Democrats	32	17	
U.S. House	Republicans	178	241	-63
	Democrats	257	194	
U.S. Senate	Republicans	41	52	-11
	Democrats	59	48	

There is one independent Governor (Bill Walker, Alaska) and there are three non-partisan and one independent Attorneys General

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U.S. Senate Elections 2018

8 Republicans up for Re-election	25 Democrats up for Re-election (Includes 2 Independents)		
Orrin Hatch (UT)	Claire McCaskill (MO)	Trump +19	Bob Menendez (NJ)
Deb Fischer (NE)	Heidi Heitkamp (ND)	Trump +36	Mazie Hirono (HI)
Jeff Flake (AZ)	Joe Manchin (WV)	Trump +42	Kirsten Gillibrand (NY)
Ted Cruz (TX)	Sherrod Brown (OH)	Trump +8	Amy Klobuchar (MN)
Dean Heller (NV)	Jon Tester (MT)	Trump +21	Debbie Stabenow (MI)
Roger Wicker (MS)	Joe Donnelly (IN)	Trump +19	Maria Cantwell (WA)
John Barrasso, MD (R-WY)	Bob Casey (PA)	Trump +1	Sheldon Whitehouse (RI)
Bob Corker (TN)	Bill Nelson (FL)	Trump +1	Bernie Sanders (I-VT)
	Tim Kaine (VA)	Clinton +5	Martin Heinrich (NM)
	Tammy Baldwin (WI)	Trump +2	Ben Cardin (MD)
	Elizabeth Warren (MA)		Chris Murphy (CT)
	Dianne Feinstein (CA) – Retire?, 83		Tom Carper (DE)
			Angus King (I-ME)

Safe Dem/GOP | Lean Dem/GOP | Most Likely to Flip

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Key White House Officials

Reince Priebus - Chief of Staff
Former head of the Republican National Committee

Stephen Bannon - Chief Strategist and Senior Counselor to the President
Former Executive Chairman of Breitbart News Network

Jared Kushner - Senior White House Advisor
Trump son-in-law; CEO of Kushner Companies and publisher of the New York Observer

Rick Dearborn - Deputy Chief of Staff for Policy
Former top aide to Sen. Jeff Sessions (R-AL) and nominee for Attorney General

Sean Cairncross - Deputy Assistant to the President and Senior Adviser to the Chief of Staff
Republican National Committee Chief Operating Officer and Deputy Executive Director and General Counsel to the National Republican Senatorial Committee for two cycles (2009-2012)

Key White House Officials

Kellyanne Conway - Counselor to the President - Founder and owner of The Polling Company, Inc./WomanTrend, a polling and research firm that has served leading political figures, nonprofits and companies.

Marc Short - Assistant to the President and Director of Legislative Affairs - Previously worked as a top operative running the political network of the Koch brothers; also a longtime adviser to Pence. Former Chief of Staff to Sen. Kay Bailey Hutchison (R-TX) and Pence, when he was in the House. During the 2016 campaign, Short worked as an adviser to Sen. Marco Rubio during the primaries, later as a senior adviser for Pence during the general election.

Andrew Bremberg - Director of the White House Domestic Policy Council - Worked at the U.S. Department of Health and Human Services from 2001 to 2009, including serving as the Chief of Staff for the Office of Public Health and Science. He later served as Policy Advisor and Counsel on Nominations for Senator Mitch McConnell. Also worked as the Policy Director for the 2016 Republican Party Platform.

Katy Talento - Domestic Policy Council Advisor for Healthcare Policy - Infectious disease epidemiologist with nearly 20 years of experience in public health and health policy, as well as government oversight and investigations and program evaluation, served on the campaign since July 2016. Talento spent 12 years in the U.S. Senate, working for five Senators and two committees.

Donald McGahn - Assistant to the President and White House Counsel - Partner at Jones Day in Washington, DC, and has specialized in political law, including government ethics; served as a member of the FEC five years, during which he served as both chairman and vice chairman).

Trump's Current Cabinet

Rex Tillerson – Secretary of State
- Former ExxonMobil CEO (2006-2016)
- Has expressed support for Trans-Pacific Partnership (TPP)
- Recommended to Trump by Condoleezza Rice

Steven Mnuchin – Secretary of the Treasury
- Nation Finance Chairman for Trump Campaign
- Former hedge fund manager and CIO of Goldman Sachs

James Mattis – Secretary of Defense
- Four-star general of the United States Marine Corps
- Served as 11th Commander of the United States Central Command

Jeff Sessions – Attorney General
- Current Alabama Senator (1997-present)
- Former U.S. Attorney for the Southern District of Alabama (1981-1993)
- Former Attorney General of Alabama (1995-1997)

Ryan Zinke – Secretary of the Interior
- Former Representative for Montana's at-large congressional district
- Served on the Montana Senate from 2009-2011
- Served as a US Navy Seal from 1986-2008

Sonny Perdue – Secretary of Agriculture Nominee
- 81st Governor of Georgia (2003-2011)
- Serves on the Governors' Council of the Bipartisan Policy Center
- Served in the US Air Force (1971-1974)

Wilbur Ross – Secretary of Commerce
- Investment Banker specializing in leveraged buyouts and bankruptcy
- Served under Bill Clinton on the Board of the U.S.-Russia Investment Fund

Alex Acosta – Secretary of Labor Nominee
- Dean of the Florida International University College of Law
- Appointed by George W. Bush to the National Labor Relations Board
- Served as Assistant Attorney General for Civil Rights in Florida

Tom Price – Secretary of Health and Human Services
- Former Representative for Georgia's 6th Congressional District
- Served as chairman of the House Budget Committee
- Orthopedic surgeon

Ben Carson – Secretary of Housing and Urban Development
- Candidate for President in the 2016 Republican primaries
- Director of Pediatric Neurosurgery from 1984-2013

Elaine Cho – Secretary of Transportation
- Served as Secretary of Labor under George W. Bush from 2001-2009
- Served as Deputy Secretary of Transportation and Director of the Peace Corps under George H.W. Bush

Rick Perry – Secretary of Energy
- Served as the 47th Governor of Texas from 2000-2015
- Candidate for President in the 2012 and 2016 Republican primaries

Trump's Current Cabinet

Betsy DeVos – Education Secretary
- Chairs the American Federation for Children, which promotes charter school education
- Activist for school choice issues as well as promoting charter schools

John F. Kelly – Secretary of Homeland Security
- Former U.S. Marine Corps General
- Served as Commander of the United States Southern Command
- Former senior military assistant to the Secretary of Defense

Robert Lighthizer – U.S. Trade Representative
- Partner at Skadden, Arps, Slate, Meagher & Flom
- Served as Deputy Trade Representative during the Reagan administration

Nikki Haley – Ambassador to the United Nations
- Current Governor of South Carolina (2011-present)
- Previously worked in mother's clothing business, and served in South Carolina House of Representatives

Mike Pompeo – Director of the Central Intelligence Agency
- Former U.S. Representative for Kansas's 4th District
- Member of House Intelligence Committee
- Sharp critic of Hillary Clinton during Benghazi investigation

Linda McMahon – Administrator of the Small Business Administration
- Former executive of World Wrestling Federation/Entertainment

David Shulkin – Secretary of Veterans Affairs
- Served as Under Secretary of Health for the Department of Veterans Affairs in the Obama Administration (2015-2017)
- Former President and CEO of Beth Israel Medical Center

Reince Preibus – White House Chief of Staff
- Former head of the Republican National Committee

Dan Coats – Director of National Intelligence
- Former Senator for Indiana from 1989-1999 and 2011-2017
- Served as U.S. Ambassador to Germany from 2001-2005
- Former member of the U.S. House of Representatives for Indiana from1981-1989

Mick Mulvaney – Director of the Office of Management and Budget
- Former U.S. Representative of South Carolina's 5th congressional district
- Tea Party memer

Scott Pruitt – Administrator of the Environmental Protection Agency
- Served as Oklahoma Attorney General from 2011-2017
- Strong opponent to environmental regulations

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Trump's First 200 Days

Fill Cabinet ✓	Supreme Court Confirmation ✓	Repeal/Replace ACA*
Tax Reform	Renegotiate trade deals	Immigration reform/Mexico border wall
"Drain the Swamp"	Infrastructure	Government-wide regulatory review

KIMBELL 290

Trump's 4,100 Presidential Appointees

- Positions range from high-profile advisers and Cabinet posts to ambassadors, small agency directors and special assistants
- These are all of the politically appointed positions listed in the Office of Personnel Management's newly released Plum Book. Some may not be filled in the Trump Administration.

1,242	• **Presidential Appointees who DO need Senate confirmation** • Includes Cabinet secretaries, agency directors and ambassadors
472	• **Presidential appointees who do NOT need Senate confirmation** • Includes most White House staff, including senior advisors such as chief of staff and press secretary, along with heads of smaller agencies
761	• **Non-career Senior Executive Service positions** • Nearly 7,000 people fall under Senior Executive Service banner, overseeing nearly all gov. activities. Roughly 10% are designated "non-career" and change with the incoming president
1,538	• **Schedule C appointments** • Personnel who report directly to presidential appointees but are not in senior leadership roles

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Make-Up of the 115th Congress (2017-2018)

While the 115th Congress will include a record number of minority women, Congress will remain overwhelmingly white, male, and middle-aged.

60	• Freshman members of the House and Senate (includes 1 non-voting member)
104	• Women who will serve in the 115th Congress • The same number as the 114th Congress, and 19.4% of the total number of lawmakers
49	• African-Americans who will serve in the 115th Congress, including 46 in the House (+2) • Three of these Members are Republicans
38	• The record number of Hispanics who will serve in the 115th Congress, including 35 in the House
15	• Asian Americans who will serve in Congress, including 12 in the House (+5)
3	• Former House Democrats who won their old seats back: Colleen Hanabusa (HI), Brad Schneider (IL), and Carol Shea-Porter (NH)

Source: The Hill

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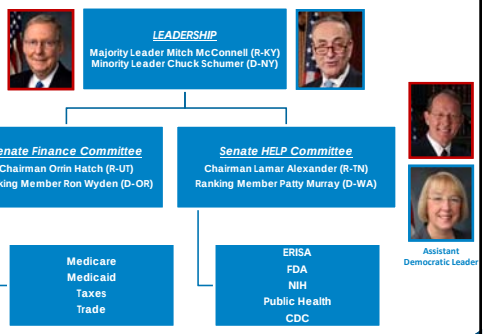
Senate Health Jurisdiction

115th Congress



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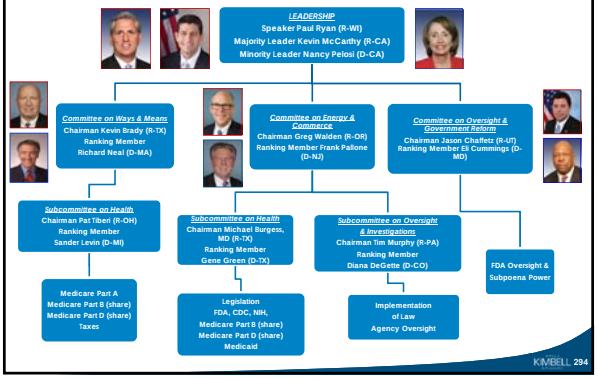
House Health Jurisdiction

115th Congress



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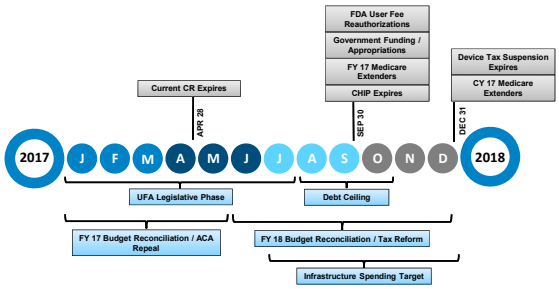
Physicians in Congress

House of Representatives		
Republicans (15)		Democrats (2)
Michael Burgess (TX) – OB/Gyn	Phil Roe (TN) – OB/Gyn	Raul Ruiz (CA) – Trauma Surgeon
Larry Bucshon (IN) – Cardiothoracic Surgeon	Tim Murphy (PA) – Psychologist	Ami Bera (CA) – Family Practitioner / Professor
Paul Gosar (AZ) – Dentist	Brad Wenstrup (OH) – Podiatrist	
Scott DesJarlais (TN) – Family Practitioner	Andy Harris (MD) – Anesthesiologist	
Buddy Carter (GA) – Pharmacist	Mike Simpson (ID) – Dentist	
Diane Black (TN) – Nurse	Brian Babin (TX) – Dentist	
Drew Ferguson (GA) – Dentist	Neal Dunn (FL) – Surgeon	
Roger Marshall (KS) – OB/Gyn		

United States Senate	
Republicans (4)	Democrats (0)
Rand Paul (KY) – Ophthalmologist	None
John Boozman (AR) – Optometrist	
John Barrasso (WY) – Orthopedic Surgeon	
Bill Cassidy (LA) – Gastroenterologist	

Legislative Vehicles 2017



Department of Health & Human Services (HHS)

National Institutes of Health (NIH)
Dr. Francis Collins
Director

- **$31.3B budget (FY 2016)**
- 18,560 employees
- 27 Institutes and Centers
- Primary government entity doing research in health
- Based in Bethesda, MD

Centers for Medicare/Medicaid Services (CMS)
Seema Verma
Administrator

- **$957.4B budget (FY 2016)**
- 4,900 employees
- Gov't insurance agency for citizens on Medicare (65+) & Medicaid (disabled/poor)
- Based in Baltimore, MD

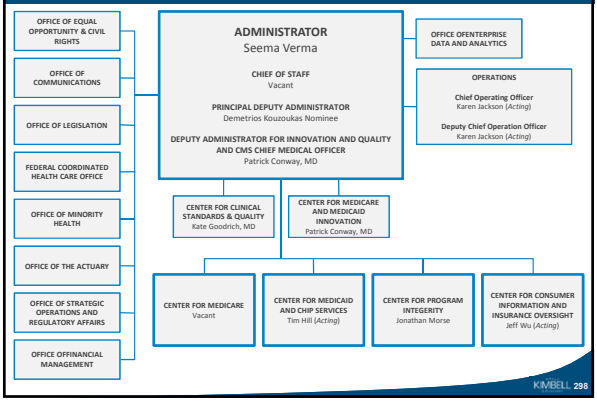
Food & Drug Administration (FDA)
Dr. Scott Gottlieb
Nominated Commissioner

- **$4.93B budget (FY 2016)**
- 13,490 employees
- Made up of 8 centers
- Regulates food/devices/drugs/biologics/cosmetics/veterinary drugs, etc.
- Goods regulated total more than 25¢ per every U.S. dollar
- Based in Rockville, MD

Centers for Disease Control & Prevention (CDC)
Dr. Anne Schuchat
Acting Director

- **$11.52B budget (FY 2016)**
- 10,620 employees
- Made up of 5 main Offices
- Responsible for reducing consequences of the leading causes of death and managing epidemiological outbreaks
- Based in Atlanta, GA

The Centers for Medicare & Medicaid Services (CMS)



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Price and Verma Set to Lead the Charge

Rep. Tom Price, MD (GA) Confirmed as HHS Secretary

- Orthopedic Surgeon from Roswell, GA
- Received Bachelors and Doctor of Medicine degrees from the University of Michigan, completed his Orthopedic Surgery residency at Emory University
- U.S. House of Representatives, 2004-Present
- Chairman, House Budget Committee (114th Congress) and Member, Ways & Means Health Subcommittee
- Previously served as Chairman of the House Republican Policy Committee and as Chairman of the Republican Study Committee
- Outspoken critic of Obamacare
- Four-term member of Georgia State Senate where he served two terms as Minority Whip and became the first ever Republican Senate Majority Leader
- Previously served as an Assistant professor at Emory University School of Medicine
- Formerly the Medical Director of the Orthopedic Clinic at Grady Memorial Hospital in Atlanta

Seema Verma Confirmed as CMS Administrator

- Indiana health policy consultant
- Received Masters in Public Health with concentration in health policy and management from Johns Hopkins University and Bachelors degree in Life Sciences from the University of Maryland
- President, CEO, and founder of SVC, Inc., a national health policy consulting company
- Architect of the Healthy Indiana Plan (HIP), the nation's first consumer directed Medicaid program
- Assisted in the development of recent Medicaid reform programs including waivers for Iowa, Ohio, Kentucky, and helped design Tennessee's coverage expansion proposal
- Participated on the Republican Governor's Public Policy Committee on Medicaid reform
- Testified before the House Energy & Commerce Health Subcommittee and presented to the House Energy & Commerce Committee's Medicaid Task Force
- Previously served as Vice President of Planning for the Health & Hospital Corporation of Marion County and as a Director with the Association of State and Territorial Health Officials (ASTHO)

Demetrios Kouzoukas, JD, Nominated as CMS Principal Deputy Administrator

- Washington based attorney
- Received his Juris Doctor degree from the University of Illinois College of Law and his Bachelor's degree in Political Science and Public Policy from the George Washington University.
- Served as Deputy General Counsel and Principal Associate Deputy Secretary of the U.S. Department of Health and Human Services (HHS) under the George W. Bush Administration.
- Responsible for overseeing HHS's government ethics compliance function
- Formerly served as General Counsel for UnitedHealthCare Medicare & Retirement
- Also served as Of Counsel for Covington & Burling LLP in their Health Care and Food & Drug Practice groups

Other Key HHS Officials

- **Eric Hargan – Deputy Secretary Nominee**
  - Previously Acting Deputy Secretary of HHS and Regulatory Policy Officer in the George W. Bush Administration
  - Formerly a shareholder in Greenberg Traurig's Health & FDA Practice
- **Paula Stannard – Senior Adviser to the Secretary**
  - Former Deputy General Counsel and Acting General Counsel at HHS
  - Formerly worked for Alston & Bird LLP
- **John Brooks – Counselor for Health Policy**
  - Former Senior Principal and Department Head, Health Policy and Economics, the MITRE Corporation
- **Mary Sumpter Lapinski – Counselor for Public Health and Science**
  - Served as Health Policy Director on the Senate HELP Committee
- **Sarah Arbes – Principal Deputy Assistant Secretary for Legislation**
  - Former Vice President of Business Roundtable
  - Served as Deputy Health Policy Director on the Senate HELP Committee
  - Former Legislative Assistant for Senator Mitch McConnel (R-KY)
- **Laura Kemper – Deputy Assistant Secretary for Legislation**
  - Served as Counsel for Senator John Cornyn (R-TX) and as a Health Policy Advisor to Tom Price during his time in the House
  - Former Associate at Alston & Bird
- **Courtney Lawrence – Deputy Assistant Secretary for Legislation**
  - Served as Interim Vice President of Federal and External Affairs at America's Health Insurance Plans (AHIP)

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Appointments at HHS

181

SAMPLE POSITIONS

19	• Presidential Appointees who DO need Senate confirmation	• Secretary, Deputy Secretary, Assistant Secretaries • General Counsel • Surgeon General • CMS Administrator, FDA Commissioner
2	• Presidential appointees who do NOT need Senate confirmation	• Director, National Cancer Institute • Assistant Secretary for Public Affairs
80	• Non-career Senior Executive Service positions	• Counselors for Health Policy, Public Health and Science • Deputy Assistant Secretaries • Directors of the CDC, Office of Global Health Affairs • FDA Commissioner Chief of Staff
80	• Schedule C appointments	• CMS Special Advisor, Confidential Assistant to the Chief of Staff • CMS, FDA, HRSA Special Assistants • Chief of Staff to the Deputy Secretary of HHS

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HHS Positions Requiring Senate Confirmation

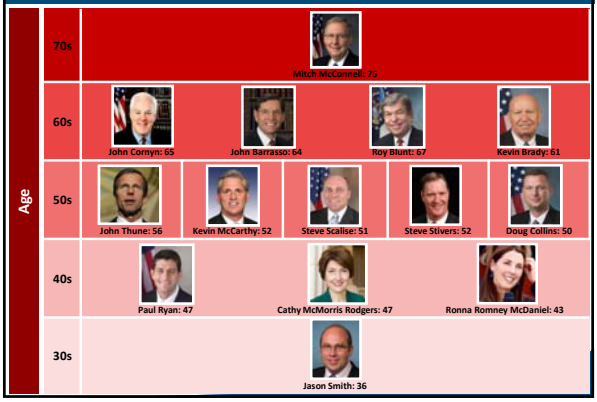
Position Title
Secretary, Health and Human Services (Confirmed)
Deputy Secretary, Health and Human Services
Assistant Secretary for Financial Resources
Assistant Secretary for Preparedness and Response
General Counsel
Assistant Secretary for Aging and Administrator, Administration for Community Living
Assistant Secretary for Planning and Evaluation
Assistant Secretary, Health
Surgeon General
Assistant Secretary for Legislation
Assistant Secretary for Children and Families
Commissioner, Administration for Children, Youth, and Families
Commissioner, Administration for Native Americans
Administrator, Centers for Medicare and Medicaid Services (Confirmed)
Commissioner of Food and Drugs
Director, Indian Health Service
Director, National Institutes of Health
Administrator, Substance Abuse and Mental Health Service
Inspector General

KIMBELL 302

Democratic Leadership is Aging…

KIMBELL 303

Republican Leadership



Key Players for 2020: Democrats

Hillary Clinton (69)

New York Governor Andrew Cuomo (59)

Starbucks CEO Howard Shultz (63)

U.S. Senator Elizabeth Warren (D-MA) (67)

U.S. Senator Cory Booker (D-NJ) (47)

U.S. Senator Kristen Gillibrand (D-NY) (50)

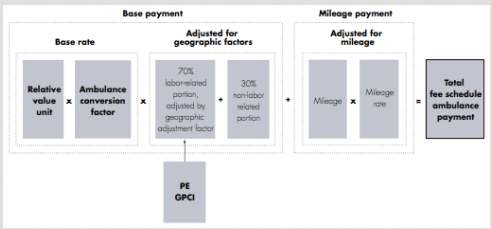
Former Mayor of NYC Michael Bloomberg (75)

Jeffrey J. Kimbell & Associates
601 13th Street NW, Ste 650 North
Washington, DC 20005

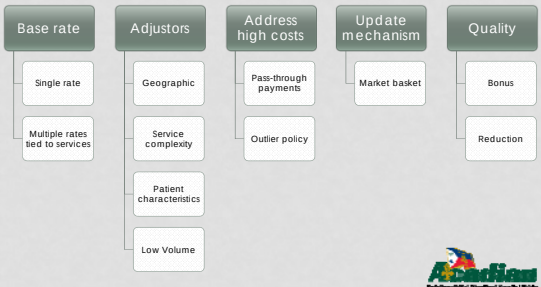
(202) 735-2590
www.kimbell-associates.com
JKimbell@kimbell-associates.com

SNAPSHOT OF TODAY

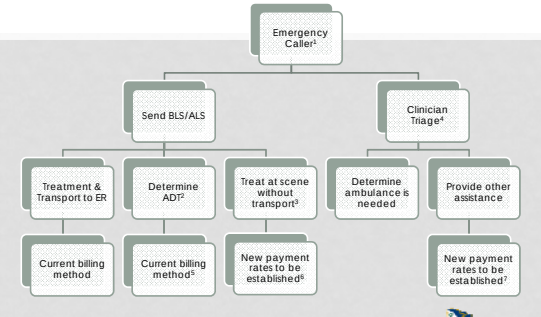
Ambulance Medicare Payment System



CORE COMPONENTS OF OTHER MEDICARE PAYMENT SYSTEMS



PAYMENT REFORM



PAYMENT REFORM FUTURE

Intermediate	Long-term
• ADT • Treat & Refer • Expansion of emergency services • Non-emergency	• MIH Services • Alignment of clinical & reimbursement

WRAP UP

1. Short-term (first 100 days of 2017)
   A. Cost Data Collection System
   B. Supplier to Provider
   C. Permanent Extenders
2. 2017 and beyond
   A. Industry alignment imperative
   B. Solution-oriented reforms

CONTACT INFORMATION

Asbel Montes
VP of Governmental Relations & Reimbursement
Acadian Ambulance Service
Asbel.Montes@acadian.com

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or
Text to: **817-991-4487**

2017 EMS 3.0 Transformation SUMMIT Hosted by NAEMT
April 24, 2017 ▪ Arlington, Virginia
Holiday Inn Rosslyn at Key Bridge

Next Steps…

Action #1

Strengthen competencies in all professional levels to ensure ability effectively provide the services that the community needs.

ListServ Subscriptions & Assistance

- ✓ NAEMT
- ✓ AIMHI
- ✓ NASEMSO
- ✓ NEMSMA

Action #2

Embrace continuous quality improvement and strive to adopt "pay for performance/value based purchasing" reimbursement linked to clinical outcomes.

Action #3

Utilize all opportunities to advocate how *EMS 3.0* supports the healthcare transformation.

Action #4

Clearly articulate the types of services that *EMS 3.0* can offer to improve patient outcomes and lower costs.

Action #5

Integrate all services into a well-coordinated, medically directed and performance-measured *EMS 3.0* package of services provided by professionals at basic and advanced levels.

Act NOW…

NAEMT

EMS 3.0 Transformation SUMMIT

Speak up!

or

Text to: **817-991-4487**

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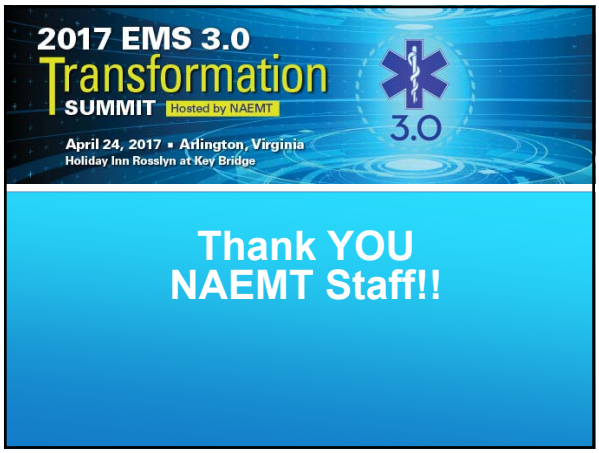
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