SBStat

Fire

Q3 2019 | September 24, 2019

Project Updates

Project Updates

Project	Timeline
Proposed Station 12	On hold
Updates to Prevention Unit – Online Portal	On hold
Rotating BC Chief Aid	On hold - Staffing
No Billing/No Call Match – Audit of PSAP/Billing	Not Started – PSAP implementation
ISO – Hydrant Inspection (higher priority)	Live Now
ISO - Plan review for new residential construction (lower priority)	Not Started – Ordinance change
ISO – Flow Testing (higher priority)	Live Now

Community Paramedicine

Pilot Evaluation

SBStat

Community Paramedicine

- Community Paramedicine is an emerging EMS program around the country
- In South Bend, our Community Paramedic, Suzie, connects with overutilizers of the EMS system to identify and solve underlying issues that lead to excessive 911 calls.
  - She meets clients where they are and work with them one-on-one to get them they help they need

Pilot Launch

Initial Proposal

- Targeting overutilizers in the EMS system to reduce their number of transports
  - Better use of emergency care services
  - Find a medical home for patients in need
  - Support our EMS personnel

Initial Proposal

- How do we measure success?
  - Increased patients with a medical home (primary care doctor)
  - Decreased call volume (for these people)
  - Social issues addressed – not always a medical home

Metrics – From Initial Proposal

- Call Volume and Transports
  - Not every call results in a transport
- Emergency department transports in target population
- Primary care visits
- Referrals to needed/eligible services
- Not currently tracking
  - Medication adherence
  - 30-day readmissions

Inputs

- Visiting clients to provide medical and social services.
- Also includes:
  - Paramedic's time
  - Paramedic train to run CP
  - MHIN partnership

Outputs

- Paramedic connects client with medical home, insurance, or transportation and facilitates those relationships
- Paramedic provides some medical care

Outcomes

- Clients reduce the use of 911 services for non-emergencies
  - EMS and transports and call volume decreases
  - Emergency room has less non-emergency patients
- Financial reimbursement – formerly nonpaying patients getting Medicare/Medicaid

Impacts

- EMS has a more positive outlook on the impact of their work EMS
- CP expands services of SBFD
- CP leads to increased quality of life for clients
  - Clients have a more positive outlook on their health
- CP clients connecting friends and family with social services
- City and SBFD are leaders in CP

Assumptions

- The clients CP visits are calling 911 with non-emergencies
- The clients CP visits are not using the health care system as intended
  - Unfamiliar with healthcare system
  - Calling 911 to avoid healthcare system
- The clients are willing to work with CP
- The clients have no medical home

Assumptions

- Client gets appropriate medical and social attention
- Client goes to doctor, take prescriptions
- Client meets requirements to maintain insurance and services
- Client calls PCP or other medical home or CP rather than 911

Assumptions

- Client takes initiative on health and social services
- Previous issues were contributing to a negative quality of life
- Get something out of the program – positive experience

Our Clients

How many clients

- 116 patients were entered into the MHIN system
- We weren't able to work with everyone who was recommended
  - Not able to get in contact, not interested in program, etc.
- Clients were unable to complete the program for various reasons
  - Death, moving away, losing contact, etc.

Demographics of Clients

- From MHIN
- Age, ethnicity, race, gender, address
  - Issue with a few clients' birth years – most likely used 20 instead of 19 in the year.

- DASHBOARD

What We Did

Referrals

- Social service referrals
  - SBFD, MICHO often provided the resource
- Healthcare referrals
  - PCP was much lower than our initial expectation
  - DME seems low based on anecdotes (need breakdown of what was done)
- Challenges in defining referrals – we'll cover later in this presentation
- DASHBOARD

Ride-alongs

- Working with IUSB, Ivy Tech, Notre Dame
  - Paramedic students
  - Social services students

Outcomes

Utilization Info

- DASHBOARD
  - Emergency visits, PCP visits, Inpatient/Observation before, during, and after the program
- Utilization decreased in all three categories (Emergency, PCP, Inpatient)

- NOTE
  - Very few patients have had a full year after completing the program. This most likely results in lower numbers in the “after” section of the data if not filtered correctly.

SBFD Outcomes

- Call Volume and Transport Volume
  - Not every call results in a transport
  - Anecdotally, people will ask to be transported in order for the care to be covered by insurance
- DASHBOARD

Days in Program

- DASHBOARD
- The number of days clients remain in the CP program has gone down since the program first
  - Getting more comfortable with the program, learning more about connecting people to resources, developing an understanding of when a client is ready to leave the program
- This means that the number of client lifecycles could increase as the program continues

Financial Impact

- We've looked at financial impact in previous meetings
  - No major changes
  - Calculator

System Savings – from MHIN

Community Paramedicine - Impacts to Hospital ED	# Encounters Before	# Encounters During	# Encounters After
Memorial Hospital of South Bend	498	256	45
Saint Joseph Regional Medical Center Mishawaka	157	59	10
Elkhart General Hospital	30	10	22

- Average ED visit cost is $1,200

Community Paramedicine - Impacts to Hospital ED	Est. Costs Before	Est. Costs During	Est. Costs After
Memorial Hospital of South Bend	$597,600	$307,200	$54,000
Saint Joseph Regional Medical Center Mishawaka	$188,400	$70,800	$12,000
Elkhart General Hospital	$36,000	$12,000	$26,400

Lessons Learned

What assumptions changed

- What changed in our theory of change
  - The main discovery was that finding a medical home was not the primary solution
  - Financial reimbursement was not as much of a problem as originally thought
  - Clients are referring their friends and family to CP, but we haven't gotten to the point where clients refer friends and family directly to social services
- Diagnoses
  - What we initially thought vs what happened
  - Mental health and addictions – highest diagnoses, but only one referral

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What do we need to do differently?

- Data Quality
  - Doesn't reflect anecdotal social needs – need documentation to support
  - Adapting to changes in program and assumptions
- Why were there data quality issues?
  - New process, new system
  - Getting on the same page with terminology, process, etc.
- How will we address this?
  - Need new ways to chart referrals, closure reasons
  - Need more options for charting social needs
  - Ability to track follow-up with clients who have been closed out

What do we need to do differently?

- Should everything be counted as a referral?
  - Not capturing everything paramedic is doing - distributing canes, getting birth certificates, etc.
    - Not currently counting as referrals
    - Currently being recorded as notes on the case
- How will we address this?
  - Tracking paramedic's time differently
    - New way to track non-medical issues handled by paramedic
    - Time spent outside of referrals – getting in contact, etc

What do we need to do differently?

- Should we change our target population based on what we've learned?
  - Infant mortality – Governor's initiative, dept of health
  - Housing needs
  - Referrals from engine crews
    - Falls
  - Not easy to pinpoint a target population based on needs

Next Steps

Adding Staff

- Asking for an additional paramedic in 2020 budget
- Would potentially double the capacity of the CP program
  - During the pilot year we served ~100 clients

Infant Mortality

- In Indiana, the overall infant mortality rate was 6.7 infant deaths for every 1,000 live births in 2012.
  - The rate in Iceland is 1.6 per 1,000 live births and around 2 out of 100,000 for Sweden, Finland, and Japan. (from Labor of Love)
- Partners
  - My Brother's Keeper – Health Department
  - Governor's Initiative – Labor of Love
- Prenatal and postnatal care

Partnerships

- MHIN
  - Re-evaluating relationship – contract renewal
- Potential partnership with Beacon
  - Financial assistance
  - Readmission Data

Analysis with other City Data

- Overlaying CP data with data from other City departments
  - PSAP
  - 311
  - Code Enforcement
- These datasets could serve as indicators for each other and for other City projects

New Law for Reimbursement

- Indiana Senate Bill 498
- "Provides that the office of the secretary of family and social services may reimburse certain emergency medical services provider agencies for covered services provided to a Medicaid recipient as part of a mobile integration healthcare program."
  - http://iga.in.gov/legislative/2019/bills/senate/498/#digest-heading
- CP for Medicaid recipients will be reimbursed
- Currently, committees are determining reimbursement rates for CP programs

Suggested Projects

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- Outside of SB Stat
  - Moving Hydrant Inspections onto Open Data Portal
    - Low effort, medium impact
    - Q4 2019 SB Stat
  - Strategic Plan Update
  - EMS satisfaction survey
  - New strategic plan in 2020
  - Medium effort, Medium impact
- Q1 2020 SB Stat
  - Cancer research study with enFocus and Notre Dame
  - High effort, high impact

Celebrating Our Values

Celebrating Our Values

- Working with Notre Dame on drone study
  - Funded by NSF ($1.2 mil)
  - Coauthors on study
  - Software program to automate drones in public safety
- Excellence, Innovation