



SATELLITE BEACH MOBILE INTEGRATED HEALTH PROGRAM

Satellite Beach Mobile Integrated Health Program

Introduction

The U.S. health care system is often described as one that fails to achieve optimal health outcomes while generating exorbitant costs for patients, payers and society.

The Institute of Medicine (IOM) estimates that \$750 billion—30% of the U.S. annual health care budget—is wasted on unnecessary services, inefficient delivery, excessive administrative costs and prevention failures. Barriers to patient access, fragmentation of acute and chronic care, ineffective management of chronic illness, and complex, outdated reimbursement processes leave patients, clinicians and payers frustrated at historic levels.

The gaps in health care service are notably evident in the care of patients at home; this is particularly true for the chronically ill, frail elderly and mobility impaired. Multiple single-purpose providers offer niche care and often only during restricted hours of operation, neither of which match the actual needs of this patient population

As a result, patients are routinely referred to hospital emergency departments (EDs) by their health care providers, outside of normal business hours and sometimes during business hours, despite the common knowledge that the ED is an imprecise match for their needs. Further, care gaps such as a lack of post-acute transitional care make preventable re-admissions a virtual inevitability that is both expensive and disappointing to patients, caregivers and the health care system.¹

This phenomenon is evident in Satellite Beach, as it is common for citizens to dial 911 and go to the Emergency Department via ambulance as directed by their primary care provider for basic diagnostic services. Furthermore, Satellite Beach Fire Department Paramedics routinely respond to reported medical emergencies only to find non-emergent conditions, however the person had limited access to their primary care provider and used the 911 system as a last resort.

¹ Mobile Integrated Healthcare Practice: A Healthcare Delivery Strategy to Improve Access, Outcomes, and Value

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Community Background

Satellite Beach is a coastal community in Brevard County, Florida with an estimated population of 10,500 residents. The city is considered a bedroom community, with 92% of the community zoned for residential housing. Though the population has remained steady as the city nears the build out potential, the population of residents 65 and older has slowly risen at a rate greater than the overall general population, growth. In 2010, adults 65 years of age and older was 16.9%. In 2014 the population 65 and older was estimated at 19.0%² and it is projected to increase an additional 50% by 2024. This age bracket accounts for almost 60% of the total call volume for Satellite Beach Fire Department Paramedics.

Satellite Beach Fire Department-Community Paramedic Program

Satellite Beach, Community Paramedic Program began in 2008 with the creation of a Senior Fall Prevention Program. In 2007 the department noted an increase in fall related injuries in the senior adult population of the city. The program was created and within 3 years reduced suspected fractured hip incident by 40%.

Through the analysis of incident data, it became clear that a large percentage of fall related incidents were the direct result of medical conditions, such as extreme postural hypotension, general weakness, and diabetes related conditions. Many of the patients were older than 75 years of age, and had multiple chronic disease conditions that were self-managed by the patient without any assistance from family or allied health services.

² US Census

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In 2009 Satellite Beach launched their Community Paramedic Program. This program was created as a part of the City of Satellite Beach “Communities for a Lifetime” initiative. This initiative is focused on creating a community that provides a broad spectrum of programs and services designed to keep senior adults living independently in their own home happier, healthier and safer.

The specific goal of the Community Paramedic program is to provide coordinated assistance and weekly monitoring to ensure medication and nutritional compliance, in addition to monitoring the patient's vital signs for senior adults who have chronic health conditions **and** do not qualify for home health services through their insurance. This program is not intended to replace the traditional home health care partners in the community, it is designed to be an enhancement to their profession with the shared goal of improving the quality of life for those in need.

The success of this program is beyond belief, virtually every participant in the program has experienced positive benefits and in many cases, the citizen was able to take control of their health and thus remain independent living in their own home.

What is Community Paramedicine

Community Paramedicine is a model of community-based health care in which Paramedics function outside their customary emergency response and transport roles in a way that can facilitate a more appropriate use of emergency care resources and enhance the access to primary care for medically underserved populations. The Community Paramedic programs typically are designed to address specific local problems. Interest in community paramedicine has substantially grown in recent years based on the belief that it may improve access to and quality of care while also reducing costs.³

The Community Paramedic Program is designed to fill healthcare gaps, without replacing home health care workers. Satellite Beach works with home health care workers and strives to be an integrated partner with the single focus of providing the best possible services to the city residents.

³ http://www.emsa.ca.gov/Community_Paramedicine

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Satellite Beach Community Paramedic Program Services

The Satellite Beach Community Paramedic Program offers in-home health monitoring and injury prevention services to senior adults with chronic health conditions, limited mobility, and an incomplete support system.

The Community Paramedic provides weekly basic health assessment, ensures medication and nutritional compliance as prescribe by the primary care provider(s), works with family members to assist in the support of the client, assist in finding various community services to meet unmet needs, and encourages and advocates for the citizen to improve the quality of health and life so they can remain in their home happier, healthier, safer.



The services provided include:

- Establish baseline assessment of the participant and identify health related issues as diagnosed by the participant's primary care provider, including a prescription medication reconciliation
- If a care plan has been developed previously for the participant, identifies strategies to integrate the community paramedic into the care support plan.
- If a care plan has not been established, Satellite Beach Health Paramedics will create a basic care plan to establish definable goals for the participant and family to meet to gain better understanding of the chronic condition, medication compliance, and social service needs
- Provide detailed environmental assessment to reduce injury potential
- Provides wireless home health monitoring devices, based on medical needs. The wireless device uploads vital signs to a secure dashboard on a daily basis.

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An Integrated Approach

Satellite Beach Fire Department has created a “Satellite Beach Senior Care Network” This network consists of a team of representatives from home health, social services, faith based, public transportation, community civic organizations, and local government. The team focuses on providing an integrated process to provide for the health, social, and physical needs of the senior adults who live in Satellite Beach. The team meets on a monthly basis and discusses in a “case management” format, the current health status of program participants, and identifies unmet needs that need to be addressed to enable the participant to improve their health status and live safely in their home engaged in the community. This program will continue to grow and be supported by the City Council of Satellite Beach.



Program Success

From the first citizen who became a participant in the Community Paramedic program, dramatic improvements in the participant’s health status were noted. This program has demonstrated the ability to reduce the frequent use of 911, reduce the need of physician services for unplanned medical episodes, and improve the participant outlook on the health care and overall well-being. Examples of our program success include

- Program participant with a primary, chronic condition of diabetes experience a substantial lowering of A1C
- Program participant year old male participant with a history of seizures as a result of non-compliance with medications, experiencing better medication management. This enabled the participant to remain as a primary care provider of a spouse with Alzheimer’s.

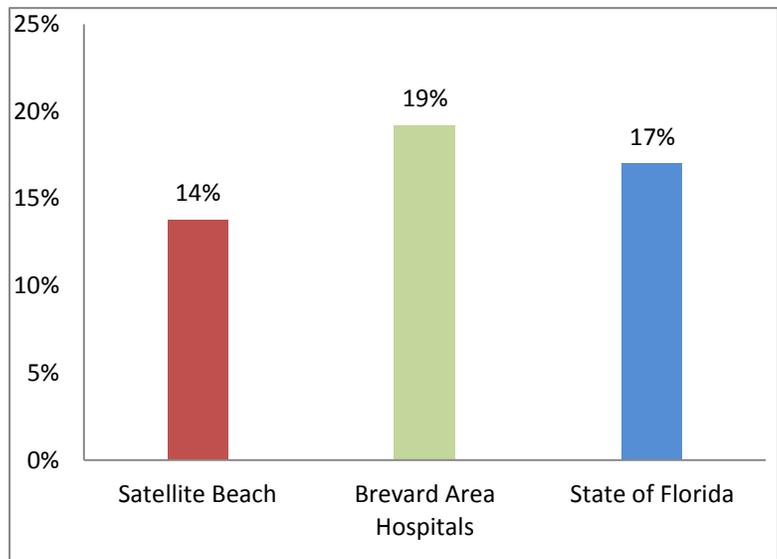
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Program Success (Continued)

- Program participant with hypertension who uploads her vital signs each morning. Community Health Paramedic noted her blood pressure was increasing each day, and was able to work with the primary care provider to adjust medications without an office visit.
- Program Participant experiencing fall related events. Community Medic found several hypertension medications issued by two different care providers, resulting in hypotension. Medications were corrected and the participant was able to graduate out of the program.

Hospital Readmission Reduction Pilot Program

The Community Medic program was designed to keep at risk populations within our community healthy and out of the hospital, and though this is still our focus it was evident that this program can reduce readmission rates back into the hospital. Over the past 180 days we have tracked 27 patients who were hospitalized and discharged to their home, and agreed to be a part of the Community Paramedic Program. These patients were followed from the incident that placed them into the hospital to the time they were discharged. Satellite Beach Community Medics were able to meet the patient in their home after discharge within 24 hours and assisted these individuals with post-discharge care, including medication compliance, and scheduling follow up care with the Primary Care Provider (PCP). Of the patients tracked, those patients who entered the IHC program experienced a **13.8 %** 30 days or less readmission rates compared to the approximately **19.2%** rate for all Brevard County hospitals, and statewide average or **17%**.



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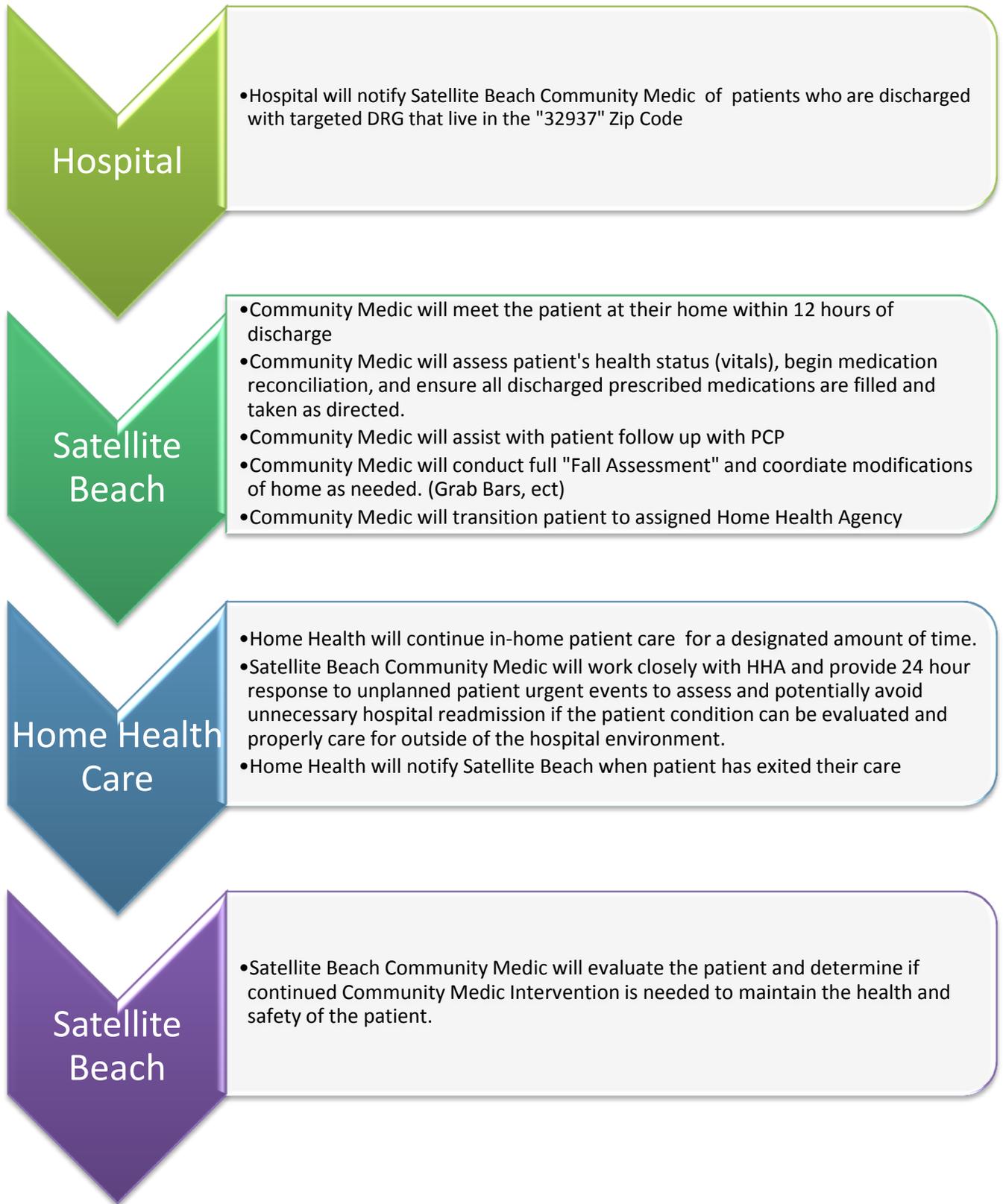
Future Initiatives

This program will continue to grow and is fully supported by the City Council of Satellite Beach. This program meets specific goals the city has set as part of the “Communities for a Lifetime” Initiative. Satellite Beach Fire Department can provide 24 hours a day full-time Community Paramedic to meet the unplanned health care needs of the beachside community. This unique ability to be available at a moment’s notice within the community makes Satellite Beach Fire Department well positioned to meet the needs of the broader health care profession. Specifically, we believe the following services provided by Satellite Beach can improve the quality of health care in the community and decrease health care cost that can create a “shared saving” environment.

- Satellite Beach is able to assist in the discharge transition of patients from the hospital. Specifically, a Community Health Paramedic will meet with a discharged patient in their home within 12 hours or less of notification of discharge. The Community Paramedic will be able to assist the patient with notification and follow up with the patient’s Primary Care Provider, ensure discharge prescriptions are filled, and assist with health care monitoring until the assigned home health care agency has established continued care.
- Provide home visit assessment for home health care agencies that has a client that is experiencing a crisis moment. The Community Health Paramedic will be able to provide eye on assessment, and coordination with the patient, home health nurse and primary care provider to determine the best course of action to meet the patient health care needs
- Provide home visit and assessment of hospice patients and family during crisis moments to provide immediate assessment and work directly with the family, hospice provider to determine the best possible approach to managing the event.
- Provide Tele-Health Consult with the appropriate health care provider via HIPPA compliant video technology. This technology will also provide high resolution HD video and still images to provide detailed resolution for wound management and post-surgical care.
- Point of Care laboratory analysis using i-Stat equipment

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Potential Hospital Discharge to Home Program



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Potential Hospice Hospital Diversion program



Hospice

- The Participating Hospice Agency will include Satellite Beach Community Medic as part of the Hospice care team for the 32937 zip code. Hospice agency will notify Satellite Beach Community Medic when a hospice patient or family has medical concerns about the patient and is considering a 911 transport to the hospital



Satellite Beach

- Community Medic will respond to the patient's home and provide medical assessment of the patient condition.
- Community Medic will make contact with Hospice Medical Director and provide medical findings to the physician, this may be accomplished via video link
- Hospice physician can direct palliative care medical procedures based on defined protocol, and if needed ,coordinate transport to a hospice care facility.



Hospice

- Community Medic will transition care back to the hospice nurse on their arrival to the home.

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Opportunities to Support

Satellite Beach Fire Department has launched a new innovative program in partnership with **iHealth labs** that expands the Community Paramedic Program. All current and new Community Paramedic clients will be provided a wireless blood pressure monitor for daily use to record their blood pressure and pulse rate. These recordings will be uploaded through the internet to a secure website that will allow the Community Paramedic to review in between their scheduled visits.

Clients who have more complex issues such as congestive heart failure, respiratory issues, and diabetes will be provided additional equipment as needed.

The goal of the Community Paramedic program is to improve the health status of its clients. To reach this goal the client and or the family must be an ACTIVE participant in their health improvement. The remote monitoring program requires the client to actively take steps each day to self-monitor their vital signs.



Over the past year, the citizens of Satellite Beach have donations to the Satellite Beach Fire Department Trust fund for the purchase of medical monitoring equipment. Donation Totals have reached \$5,000

Item	Unit Cost
IPad Mini with Data (if needed)	\$350.00
Wireless BP Cuff	\$79.00
Wireless Pulsexymetry	\$29.00
Wireless Glucometer	\$29.00
Total	\$487.00