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Lincoln County Community Paramedicine Data Collection Initiative [Infographic]

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Lincoln County Community Paramedicine Data Collection Initiative

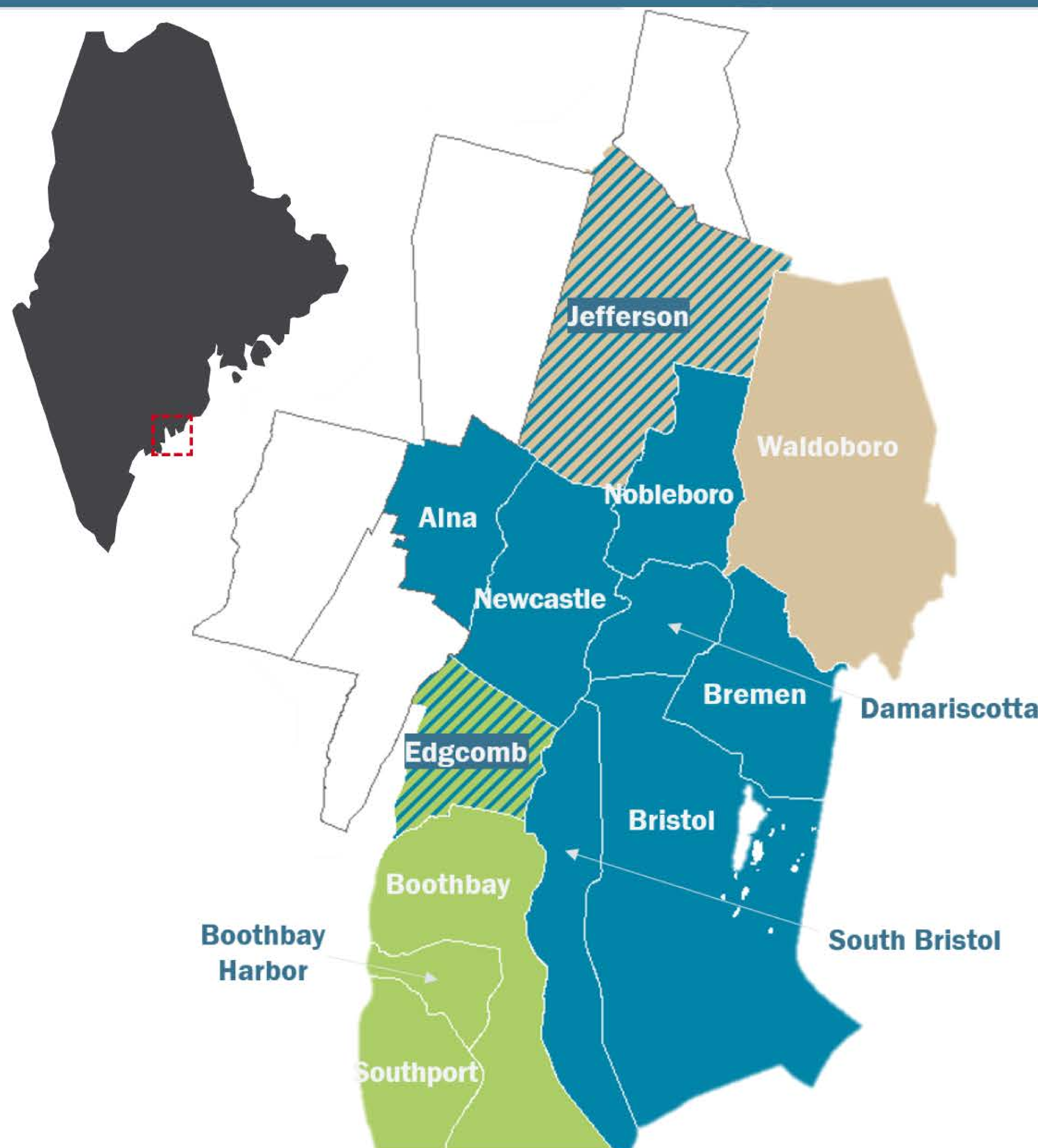
Maine Legislature describes Community Paramedicine (CP) as...

the practice by ***an emergency medical*** services provider primarily in an ***out-of-hospital setting*** of providing episodic patient ***evaluation, advice and treatment directed at preventing or improving a particular medical condition***, within the scope of practice of the emergency medical services provider as specifically ***requested or directed by a physician***. (Sec. 1. 32 MRSA §84, sub-§4)

With funding from the Doree Taylor Charitable Foundation, in 2019 LincolnHealth embarked on data collection and analysis of patients in Lincoln County, Maine who use Community Paramedicine Services (CP).

LincolnHealth contracted with the Cutler Institute to standardize data collection and conduct service utilization & preliminary cost analyses for 2016, 2017, and 2018.

This project lays the groundwork of highlighting the value of Community Paramedicine, particularly regarding patient health outcomes, and the reduction of hospitalizations and emergency department (ED) use.



Lincoln County CP Service Areas

- Boothbay Regional Ambulance Service (B.R.A.S.)
- Central Lincoln County Ambulance Service
- Waldoboro EMS
- Potential future service areas

Note: Stripes indicate shared service area
B.R.A.S. also services Monhegan, and Waldoboro also services Friendship, not shown

Targeted Chronic Diseases

Recognizing that chronic diseases contribute to the high cost of health care, Lincoln County CP service focuses on individuals with any of the following chronic conditions:

- Diabetes
- Congestive Heart Failure (CHF)
- Chronic Obstructive Pulmonary Disease (COPD) or Asthma

How does Community Paramedicine help patients?

General Assessment

includes: evaluation, vital signs, weight check, blood sugar, medication compliance and/or reconciliation, oxygen saturation, or other assessments

Clinical Care

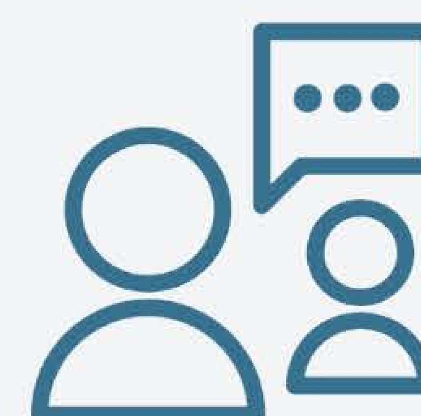
includes: CHF follow up, COPD follow up, diabetes follow up, dressing changes or wound checks, or other clinical care

Lab Collection

includes: blood draw, POC A1c, POC INR, or other requested lab/blood tubes

Prevention Assessment

includes: home safety, social assessment, flu vaccination



Education

includes: asthma medication education, COPD education, diabetes education, inhaler use

These services are based on the CP request by the referring provider. Referrals to CP are made by providers (often primary care physician), hospital staff, and/or Home Health (HH) agency. In Lincoln County, CP services work closely with HH services to ensure robust, non-duplicative services.

Lincoln County Community Paramedicine Data Collection and Analysis

Review of document hard copies of CP visit referrals, records, and reports from 2016, 2017, and 2018

Review of Electronic Medical Records, using 4 systems

Standardization of patient data on demographics, service use, and CP referral **and analysis** of trends

2016		**2017**		**2018**	
112 patients	545 complete visits	103 patients	308 complete visits	103 patients	305 complete visits

On average, who is being referred to CP in Lincoln County?

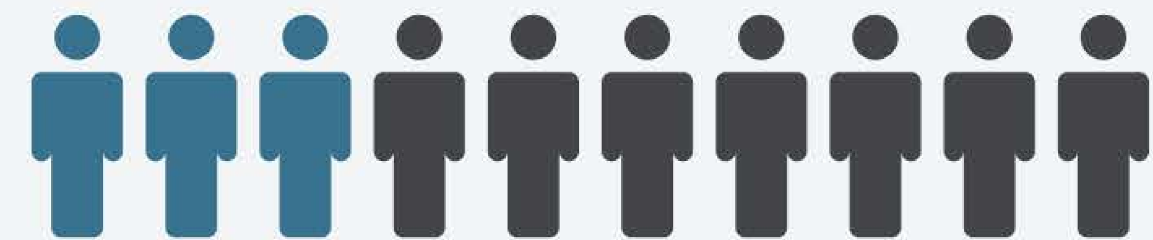
63% female; 37% male

Average age: 78.3

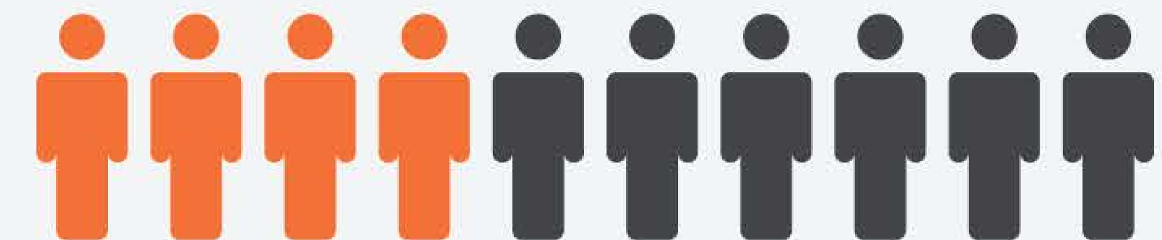
58.5% have at least one of the following chronic conditions: CHF, COPD, diabetes

Chronic Disease Findings: Patients Receiving Community Paramedicine

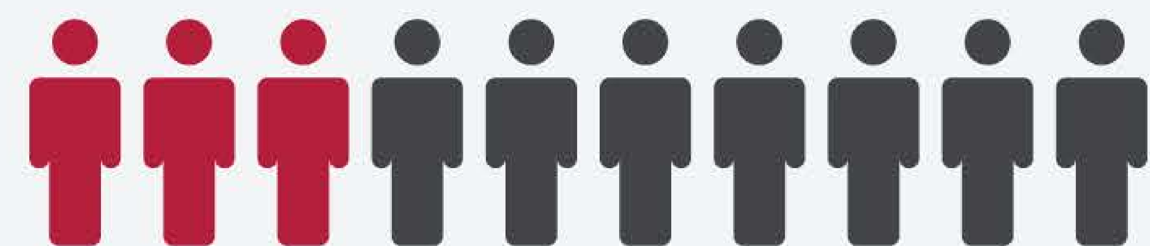
3 in 10 referred patients have a diabetes diagnosis



4 in 10 referred patients have a CHF diagnosis



3 in 10 referred patients have a COPD diagnosis



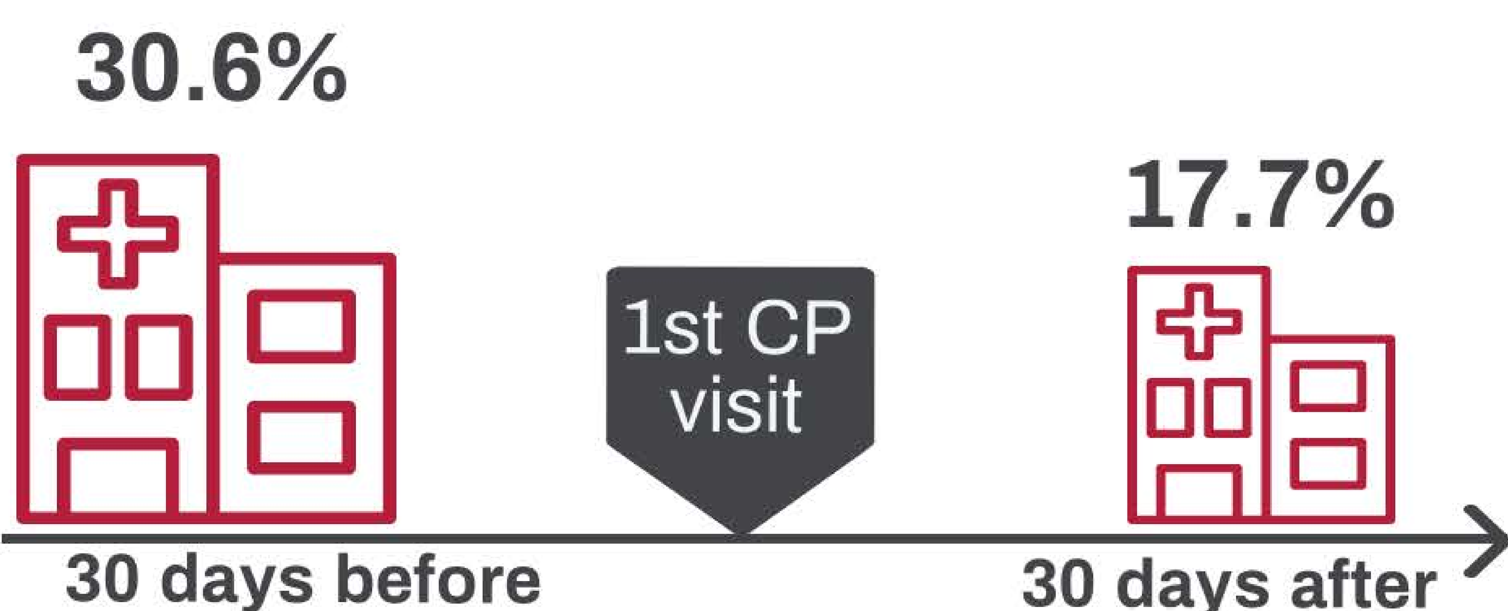
Note: Data for patients referred in 2018, comorbidity data not shown

Service Utilization Findings

Data indicate decline in ED and hospital utilization for patients in the month after their initial CP visit for all years 2016, 2017, and 2018.

Percent of patients with ED visits

Percent of patients with hospitalizations



Note: Data for patients with complete first visit, aggregating all years 2016, 2017, 2018

Cost Avoidance Case Example

ED Costs* in reference to CP visit:
Prior: $5895
Post: $0

Data indicate **cost avoidance** of high-cost services for CP patients. In 2018, a CP patient in his 70's used the ED three times in the month prior to his first CP visit. In the 30 days after the completed initial CP visit for lab collection, he did not return to the ED. Compiling patients' service utilization across Lincoln County's CP patient panel helps show system-wide cost avoidance.

*2017 national and Maine averages for the cost of transport and ED visits

Sustainability

CP services in Maine are currently funded by grants, charitable gifts, and in-kind donations.

Standardizing data collection and conducting cost analyses for CP programs are key strategies to sustain these programs in the future, as they show the effectiveness of the services.

Reimbursement from private and public insurers is the major driving force, and goal, for sustainability.

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For more information on the Lincoln County CP Data Collection Initiative, please email **LincolnHealthParamedicine@lchcare.org**

FMI about CP in Maine, call Maine Emergency Medical Services at 207-626-3860, or see http://www.maine.gov/ems

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