Lehigh Valley Health Network

LVHN Scholarly Works

Department of Family Medicine

Effect of Team-Based Communication Post an ER Visit.

Madalyn Schaefgen MD
Lehigh Valley Health Network, Madalyn.Schaefgen@lvhn.org

Barbara Sikora LPN
Lehigh Valley Health Network, Barbara.Sikora@lvhn.org

Colleen Poehler
Lehigh Valley Health Network, Colleen.Poehler@lvhn.org

Kyle Shaak MPH
Lehigh Valley Health Network, Kyle.Shaak@lvhn.org

Follow this and additional works at: https://scholarlyworks.lvhn.org/family-medicine

Part of the Medical Specialties Commons

Let us know how access to this document benefits you

Effect of Team-based Communication Post an ER Visit

Madalyn Schaefgen MD (Physician Practice Leader), **Barbara Sikora LPN** (Nurse Clinical Coordinator), **Colleen Poehler** (Practice Director), **Kyle Shaak MPH** (Data Analyst)

Lehigh Valley Health Network, Allentown, PA

INTRODUCTION

- **One challenge** that faces hospitals nationwide involves how to prevent unnecessary visits to the emergency room while improving patient care and population health at a lower cost (the Triple Aim).
- **Emergency room (ER) visits** in the USA totaled 130.4 million in 2012. This was 41.9 visits per 100 persons. About 20% of children and adults had one or more emergency department (ED) visits during the year. Approximately 11% of patients were admitted from the ER to the hospital. Most (69%) were to return to the ER or were referred to physician or clinic for follow up. However, 12.3% of the time no follow-up was planned, with another 5.1% who left or were lost to follow-up.
- **The cost of emergency room visits** is not insignificant.
- **Many of these ER visits are for care that could more appropriately be provided in primary care.**
- **Following up on ER visits** provides a comprehensive continuum of care as part of the Patient-Centered Medical Home (PCMH), and attempts to prevent a return to the ER for problems that can be handled within the outpatient office.
- **At LVPG Family Medicine at Cetronia Road,** our office has taken the approach of contacting patients after every ER visit, not just hospital admissions. We started the process in August of 2015. Since then, over 1600 patients have been contacted after an ER visit.
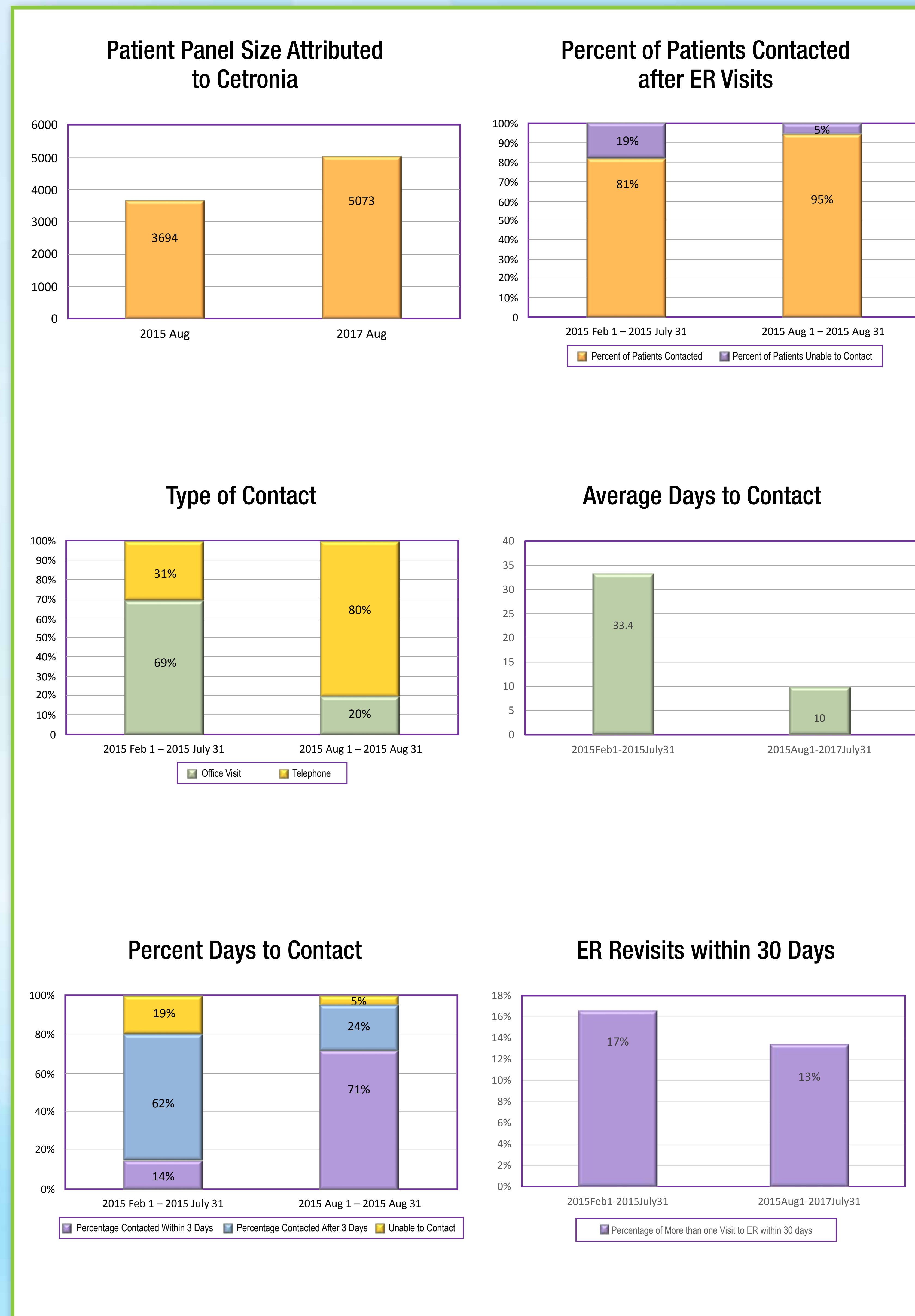
RESEARCH GOALS:

- To determine if contacting patients of the practice within three days of an ER visit could decrease future ER visits.
- To educate patients on office availability and services available at the practice
- To reconnect with patients that routinely were not coming to office and create a therapeutic relationship

STUDY DESIGN:

- We started the project in 8/2015 as we had a new electronic medical record which integrated inpatient and outpatient visits, allowing our practice at Cetronia to view our own panel of patients who had visited an ER within our hospital network at the time of service.
- Nurses and Medical Assistants contacted the patients after the ER visit. The goal was to make contact within 3 business days, and to determine if there was a need for a follow up visit in the office.
- The contact also included a chart review to determine if there was a need for a follow up in the office for other reasons such as chronic conditions or Health Maintenance.

DATA ANALYSIS

Patient Panel Size Attributed to Cetronia

- 2015 Aug: 3694
- 2017 Aug: 5073

Percent of Patients Contacted after ER Visits

- 2015 Feb 1 – 2015 July 31: 81% / 19%
- 2015 Aug 1 – 2015 Aug 31: 95% / 5%

Percent of Patients Contacted / Percent of Patients Unable to Contact

Type of Contact

- 2015 Feb 1 – 2015 July 31: 69% / 31%
- 2015 Aug 1 – 2015 Aug 31: 20% / 80%

Office Visit / Telephone

Average Days to Contact

- 2015Feb1-2015July31: 33.4
- 2015Aug1-2017July31: 10

Percent Days to Contact

- 2015 Feb 1 – 2015 July 31: 14% / 62% / 19%
- 2015 Aug 1 – 2015 Aug 31: 71% / 24% / 5%

Percentage Contacted Within 3 Days / Percentage Contacted After 3 Days / Unable to Contact

ER Revisits within 30 Days

- 2015Feb1-2015July31: 17%
- 2015Aug1-2017July31: 13%

Percentage of More than one Visit to ER within 30 days

EVALUATION METHODS:

- ER visits and follow ups were evaluated during the following dates:
  - 2/1/2015 – 7/31/2015 – prior to initiating the routine follow up of all ER visits
  - 8/1/2015 – 7/31/2017 – after initiating contacting all ER visi
- For each evaluation period we analyzed the following:
  - Empanelment - Defined as anyone 1) currently 18 or older, 2) whose PCP is a Cetronia Road clinician, and 3) has been seen at least once at Cetronia Road in the past 2 years. Calculated as of August of 2015 and August 2017.
  - Number of ER Visits - An ER visit was counted if the patient 1) wasn't admitted to the hospital after the ER visit, and 2) the patient's PCP at time of ER visit was a Cetronia Road clinician.
  - ER re-visits – If the patients identified as having an ER visit had another ER visit within 30 days of the first.
  - Admissions – If the patients identified as having an ER visit went on to have an admission within 30 days, not as a result of the first ER visit
  - Contact – Defined as first Cetronia Road contact after ER visit - documented by date, type of encounter and days since ER visit.
  - ER Discharge diagnosis - The final diagnosis for each ER visit

PRINCIPLE FINDINGS:

- **Patient panel growth** - the patient panel at Cetronia grew from 3694 to 5073 over a 2 year period, a growth of 37%, with the addition of another 0.5 FTE physician.
- **Increased contact after ER visit** - The percentage of patients contacted by the practice after an ER visit increased by 14% with the office procedure change made in August 2015, with only 5% of patients not able to be contacted.
- **Change in method of contact** - Initial contact with the patient post an ER visit changed from an office visit (usually previously scheduled routine) to a phone outreach. (Phone call as the initial contact increased from 39% to 80%).
- **Decrease in time to contact** - The average number of days to contact a patient after an ER visit decreased from 33 days to 10 days. The number of patients contacted within 3 days rose from 14% up to 71%
- **Decrease in ER re-visits within 30 days** - The number of ER re-visits decreased from 17% down to 13%.

CONCLUSIONS:

Making an effort to contact all patients who visited the Emergency Room has significantly affected the patients and the practice at LVPG Family Medicine at Cetronia Road. Prior to August of 2015, patients seen in the ER were advised by the ER provider to follow up with their PCP. A large majority of these patients self initiated contact with the office, with an average date of contact greater than a month (indicating not truly ER follow up), and 69% of them were seen at an office visit (likely routine).

Starting in August of 2015, the office nurses and medical assistants were able to easily recognize patients who had visited with Emergency Rooms within our hospital network through our new electronic medical record. There was an average of about 16 ER visits per week. They made phone calls to these patients in a timely fashion, contacting significantly more patients than prior to August 2015, and over seventy percent of the time within three days.

From August 2015 to August 2017 the Emergency Room rate of re-visits decreased by four percent as compared to February 2015 to August 2015. The patient panels have steadily increased during this timeframe. Our office quality metric scores have been the highest in the family medicine department over this past fiscal year (2016July1-2017Jun30), and Cetronia has been recognized by our network for this.

CHALLENGES & SUCCESSES:

- **Challenges** -
  - Being able to consistently capture ER visits happening outside of our network.
- **Successes** -
  - Better understanding of our EMR system to find and research data.
  - Creating improved therapeutic relationships with patients and office teams
  - Patient panel growth
  - Decrease in patient ER re-visits within 30 days

REFERENCES:
1. http://www.ihi.org/engage/initiatives/TripleAim/Pages/default.aspx
2. NCHS, National Hospital Ambulatory Care Survey, 2013: https://www.cdc.gov/nchs/data/ahcd/nhamcs_emergency/2013_ed_web_tables.pdf, https://www.cdc.gov/nchs/fastats/emergency-department.htm
3. Expenses and Characteristics of Physician visits in Different Ambulatory Care Settings, 2008 Steven Machlin, MS and Sadeq Chowdhury , PhD. https://meps.ahrq.gov/data_files/publications/st318/stat318.pdf
4. Agency for Healthcare Research and Quality. Emergency Room Services-Mean and Median Expenses per Person With Expense and Distribution of Expenses by Source of Payment: United States, 2013. Medical Expenditure Panel Survey Household Component Data. Generated interactively. (August 20, 2017)
5. http://www.consumerhealthratings.com/index.php?action=showSubCats&cat_id=274
6. Joint Principles of the Patient-Centered Medical Home March 2007. http://www.aafp.org/dam/AAFP/documents/practice_management/pcmh/initiatives/PCMHJoint.pdf

610-402-CARE   LVHN.org

Lehigh Valley Health Network