An Integrated Model of Palliative Care in the Emergency Department to Improve Referrals

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Doctorate of Nursing Practice Project Defense

April 12, 2019

Acknowledgements

Karen Burritt, PhD, RN, FNP-BC

Barbara Hooper, DNP, RN, NE-BC, CHSE

Janice Sheafor, MPA, BSN, RN, OCN

Rafael Bloise, MD, MA, FACP, HMDC

Lindsey Kooiker, BSN, RN, CHPN

Kayla Moore, MSW

Family: Joe, Joseph, Kayla, Brittney, Hunter, and Juliana

Shannon Shamback, DNP, APRN, FNP-BC

Objectives for Presentation

IDENTIFY THE CLINICAL PRACTICE PROBLEM

REVIEW EVIDENCE BASED RECOMMENDATIONS

DISSEMINATE PROJECT RESULTS

DEFEND THE DNP PROJECT

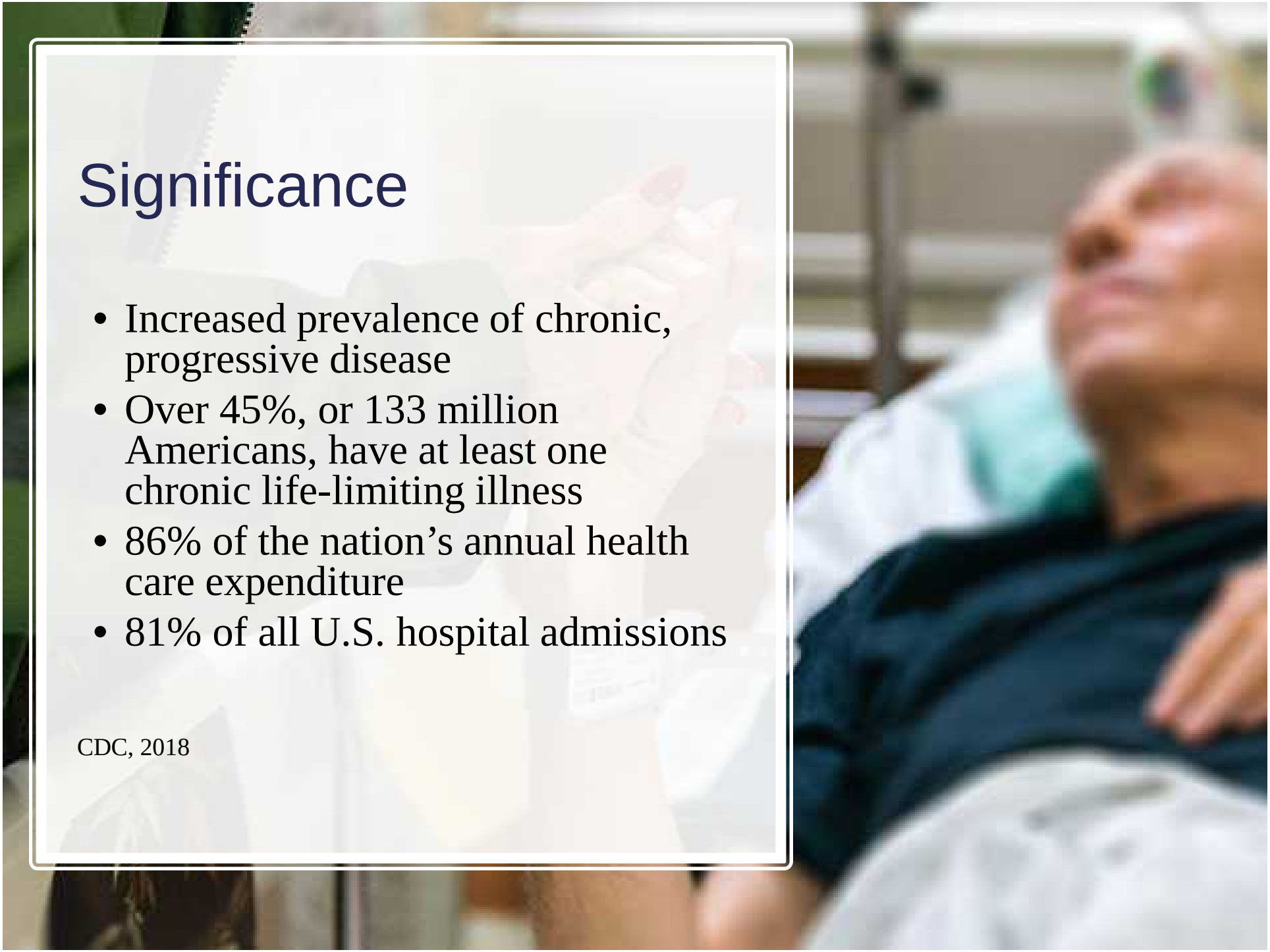
Background

The ED plays a critical role in the trajectory of healthcare

Traditional care
– do everything and anything –
may add to patient suffering

Palliative care is
focused on easing suffering by
improving quality of life

Boyle, 2018; Fermia et al., 2016; George et al., 2016; Lamda et al., 2014



Significance

- Increased prevalence of chronic, progressive disease
- Over 45%, or 133 million Americans, have at least one chronic life-limiting illness
- 86% of the nation’s annual health care expenditure
- 81% of all U.S. hospital admissions

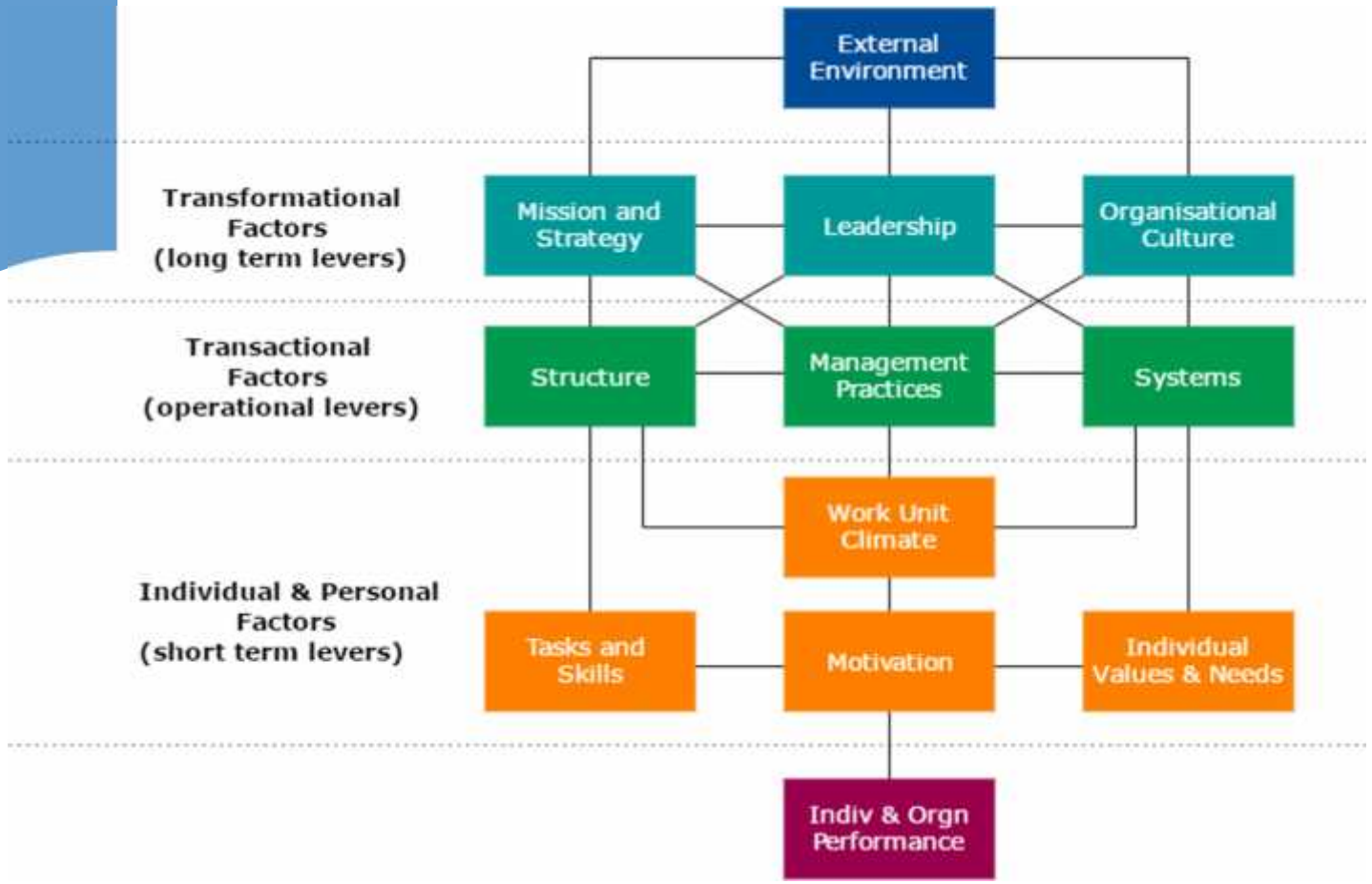
CDC, 2018

Goal of this Project

- Implement an evidence-based screening tool to identify patients with a life-limiting illness within an adult emergency department to initiate early palliative care referrals

Framework: Burke & Litwin

Burke & Litwin, 1992



SWOT

STRENGTHS	WEAKNESSES
• Sustainable organization at the system, community, and individual level • Key stakeholders – staff, management, leadership of the unit engaged in this problem and see it as important • Unit engaged in quality improvement • Palliative care committees aimed at quality improvement • Specialty unit: providers trained in PC	• High patient acuity • ED Physician "buy in" for PC referral • Community PC project • Limited PC knowledge in ED
OPPORTUNITIES	**THREATS/CHALLENGES**
• Culture within the greater organization is one of willingness to change for quality improvement • Onboarding of new staff • Improving discharge planning • Enhance quality of care by integrating evidence-based care • Decreased cost of care • Decreased readmission rates	• Funding for resources/staff /implementation may be limited • Availability of community-based resources for patient discharge

Assessment of the Organization

- Sustainable healthcare system
- Aligns with organizational strategic plan
- Leadership is supportive of change
- Emergency department “buy in”
- Limited education on palliative care services
- Community based palliative care initiative
- EHR change implementation scheduled for 2020

Key Stakeholders

- Management - PC and ED
- Clinicians - PC and ED
- RNs, MSW, CNL/CNS - PC and ED
- PC Program Coordinator

Clinical Practice Question

For patients with a life limiting illness, does an early referral to palliative services improve goals of care, augment symptom management, and decrease health care utilization?

Aims of Literature Review

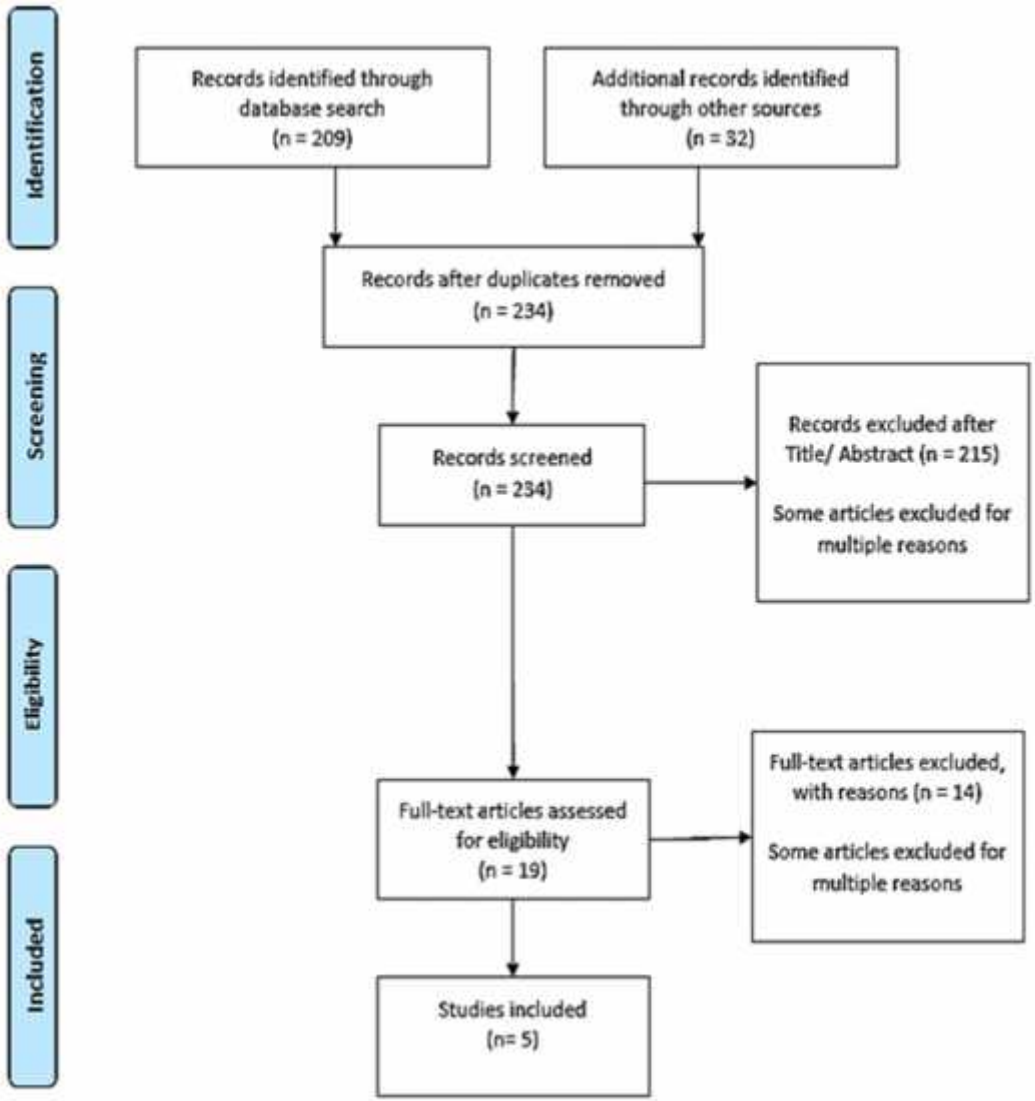
Identify	• Identify the patient population
Examine	• Examine screening criteria
Understand	• Understand patient outcomes associated with early PC referrals

Literature Review Method

- PRISMA Framework
- CINAHL and PubMED
- English language
- 2016 to 2018 with full text available
- Keywords:
  - Palliative Care
  - Emergency Department
  - Screening
  - Referral

PRISMA Figure

Moher et al., 2009



Results

- 5 articles met inclusion criteria
  - 2 systematic reviews
  - 1 single blind RCT
  - 1 prospective observational study
  - 1 retrospective study
- Life-limiting illness: incurable medical condition that will shorten a person's life span and have a direct affect on a patient's quality of life
- Screening or evaluation tool utilized
- Variety of outcome measures

Literature Summary Table

Author	Design (N)	Inclusion Criteria	Interventions vs. Comparison	Results	Conclusion
Cotogni et al., 2017.	Observational study (N=257)	1)Known LL diagnosis 2) Waiting for hospitalization after ED visit	SIAART/NCCN screening tool vs. development of SST.	A simplified screening tool demonstrated similar sensitivity and specificity of SIAART/NCCN	PC pts in the ED can be identified using a SST
da Silva Soares et al., 2016.	Systematic Review (N=4373)	1) 18+ years 2) Advanced dx 3) Interventional controlled studies, pre-post studies, cohort studies, case studies	Screening tool vs. traditional PC/ED model vs. Integrated PC/ED model	LOS reduction (4.32 days with early referral vs. 8.29 days inpatient referral). Limited evidence for other outcomes. 1 study showed higher in hospital death rate with ED/PC referrals	Reduction in LOS Inconclusive on impact of symptom control, QOL, use of healthcare services
George et al., 2016.	Systematic Review	1) 18+ years 2) Screening tool 3) English language	Independent screening tools for each study	Use of a screening tool resulted in increasing rates of PC referrals	Screening and PC referrals are feasible in the ED setting
Grudzen et al., 2016.	Single blind RCT (N=136)	1) Advanced cancer 2) Adult pt 3) Cognitive intact 4) Never had PC referral previous 5) English or Spanish language	Pt received a comprehensive PC consult	QOL significantly higher. Median estimates of survival were higher with PC (289 days vs. 132 days)	ED/PC consults improves QOL with no impact on survival. Impact on healthcare utilization and depression warrants further study
Ouchi et al., 2017.	Retrospective study (N=207)	1) ED attendings 2) designated time frame	2 step screening tool administered by ED physicians	70% of providers found tool acceptable. Avg time for completion 1.8 min.	A rapid screen for pt with PC needs is acceptable to ED providers. Identified a significant number of pt who may benefit from PC referral

Relevance to Clinical Practice

Implementation of a screening tool to identify ED patients with advanced disease is supported

Insufficient evidence on outcomes

Clinically significant outcomes on survival rates (289 days vs. 132 days)

Cogniti et al., 2017; da Silva Soares, 2016; George et al., 2016; Gruzden et al., 2016; Ouchi et al., 2017

Evidence for Project

Standardized screening tool in the ED can help identify appropriate PC patients

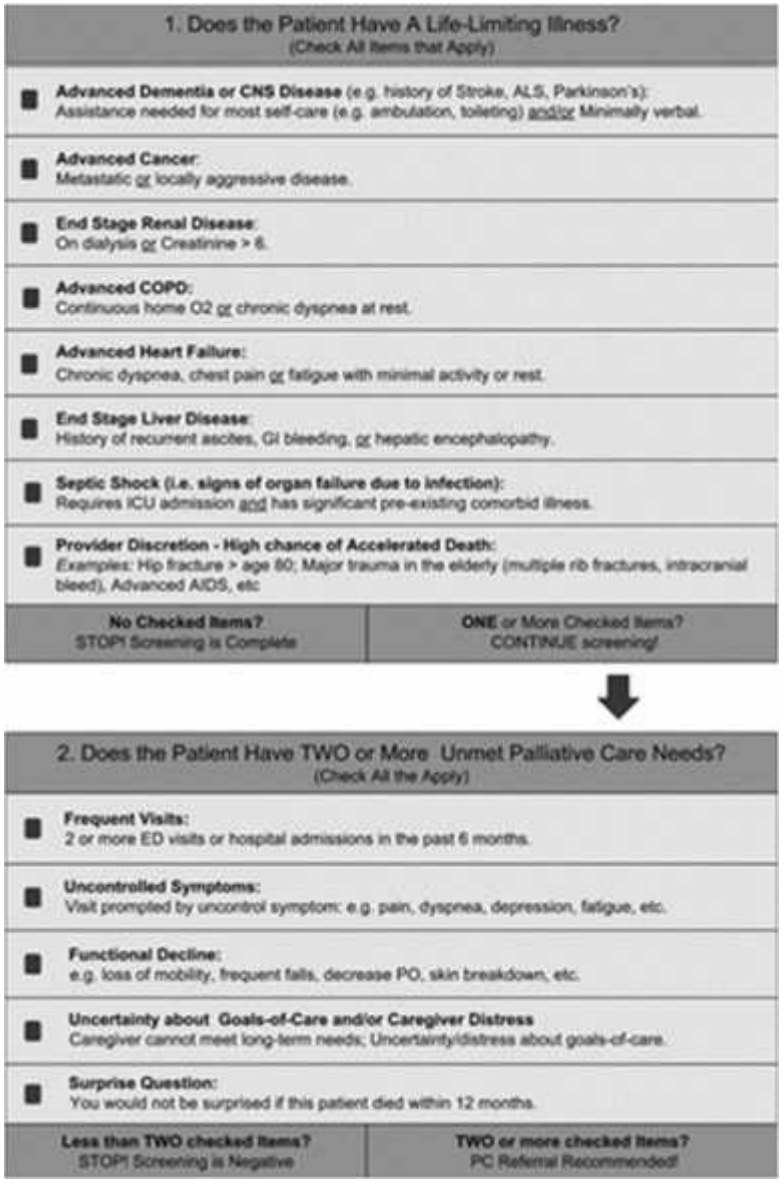
Inter-disciplinary care model with PC/ED interface of medically complex patients improves GOC

Patient outcomes may improve with a standardized process

daSilva Soares et al., 2016; George et al., 2016; Ouchi et al., 2017

Screening Tool

George et al., 2015



1. Does the Patient Have A Life-Limiting Illness?
(Check All Items that Apply)

- ☐ **Advanced Dementia or CNS Disease** (e.g. history of Stroke, ALS, Parkinson's): Assistance needed for most self-care (e.g. ambulation, toileting) and/or Minimally verbal.
- ☐ **Advanced Cancer**: Metastatic or locally aggressive disease.
- ☐ **End Stage Renal Disease**: On dialysis or Creatinine > 6.
- ☐ **Advanced COPD**: Continuous home O2 or chronic dyspnea at rest.
- ☐ **Advanced Heart Failure**: Chronic dyspnea, chest pain or fatigue with minimal activity or rest.
- ☐ **End Stage Liver Disease**: History of recurrent ascites, GI bleeding, or hepatic encephalopathy.
- ☐ **Septic Shock (i.e. signs of organ failure due to infection)**: Requires ICU admission and has significant pre-existing comorbid illness.
- ☐ **Provider Discretion - High chance of Accelerated Death**: *Examples:* Hip fracture > age 80; Major trauma in the elderly (multiple rib fractures, intracranial bleed); Advanced AIDS, etc

No Checked Items? STOP! Screening is Complete	**ONE** or More Checked Items? CONTINUE screening!

2. Does the Patient Have TWO or More Unmet Palliative Care Needs?
(Check All the Apply)

- ☐ **Frequent Visits**: 2 or more ED visits or hospital admissions in the past 6 months.
- ☐ **Uncontrolled Symptoms**: Visit prompted by uncontrol symptom: e.g. pain, dyspnea, depression, fatigue, etc.
- ☐ **Functional Decline**: e.g. loss of mobility, frequent falls, decrease PO, skin breakdown, etc.
- ☐ **Uncertainty about Goals-of-Care and/or Caregiver Distress** Caregiver cannot meet long-term needs; Uncertainty/distress about goals-of-care.
- ☐ **Surprise Question**: You would not be surprised if this patient died within 12 months.

Less than TWO checked Items? STOP! Screening is Negative	**TWO or more checked Items?** PC Referral Recommended!

Theory of Symptom Management

Concepts

Symptom Experience

Symptom Management

Symptom Outcomes

Domains

Person

Health and Illness

Environment

Dodd et al., 2001

Project Purpose

- The purpose of this DNP scholarly project was to identify patients with life limiting illness that have unmet palliative needs and initiate timely referrals

Project Objectives

- Develop an evidenced-based tool-kit for an integrated model of palliative care in the emergency department
  - Collect baseline data
  - Perform a cost savings analysis
  - Identify an evidenced based screening tool
  - Create protocol and educational model for implementation of the screening tool
  - Disseminate work to key stakeholders within the organization

IRB Approval

GRAND VALLEY STATE UNIVERSITY

DATE: January 21, 2019

TO: Karen Barritt
FROM: Office of Research Compliance & Integrity
PROJECT TITLE: Developing an Integrated Model of Palliative Care in the Emergency Department
IRBNet/HSRS #: 19-204-H
SUBMISSION TYPE: IRB Research Determination Submission

REVIEW: Not Research
EFFECTIVE DATE: January 21, 2019
REVIEW TYPE: Administrative Review

Thank you for your submission of materials for your planned scholarly activity. It has been determined that this project does not meet the definition of research according to current federal regulations. This project therefore does not require further review and approval by the IRB. Scholarly activities that are not covered under the Code of Federal Regulations should not be described or referred to as "research" in materials to participants, sponsors or in dissemination of findings. While performing this project, you are expected to adhere to the institution's code of conduct and any discipline specific code of ethics.

A summary of the reviewed project and determination is as follows:

The goal of this project is to initiate a screening tool for early palliative care referrals in an adult emergency department to preserve patient goals of care at a local hospital. While this is a systematic investigation, it is not designed to contribute to generalizable knowledge. Therefore, this project does not meet the Federal definition of research and IRB oversight is not needed.

This determination letter is limited to IRB review. It is your responsibility to ensure all necessary institutional permissions are obtained prior to beginning this project. This includes, but is not limited to, ensuring all contracts have been executed, any necessary Data Sharing Agreements and Material Transfer Agreements have been signed, and any other outstanding items are completed.

An archived record of this determination form can be found in IRBManager from the Dashboard by clicking the "_ eForms" link under the "My Documents & Forms" menu.

If you have any questions, please contact the Office of Research Compliance and Integrity at (616) 331-3197 or [redacted]. Please include your study title and study number in all correspondence with our office.

"Research is a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge." 45 CFR 46.102 (l)(1)

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GRAND VALLEY STATE UNIVERSITY
KIRKHOF COLLEGE OF NURSING

Design

- Quality Improvement:
  - analyzing the culture
  - identifying practice problems
  - collecting and analyzing data
  - disseminating results
  - continued evaluation

Setting and Participants

371 bed, non-profit health care system within West Michigan

Palliative care department

Emergency department

Project Members

Academic advisors

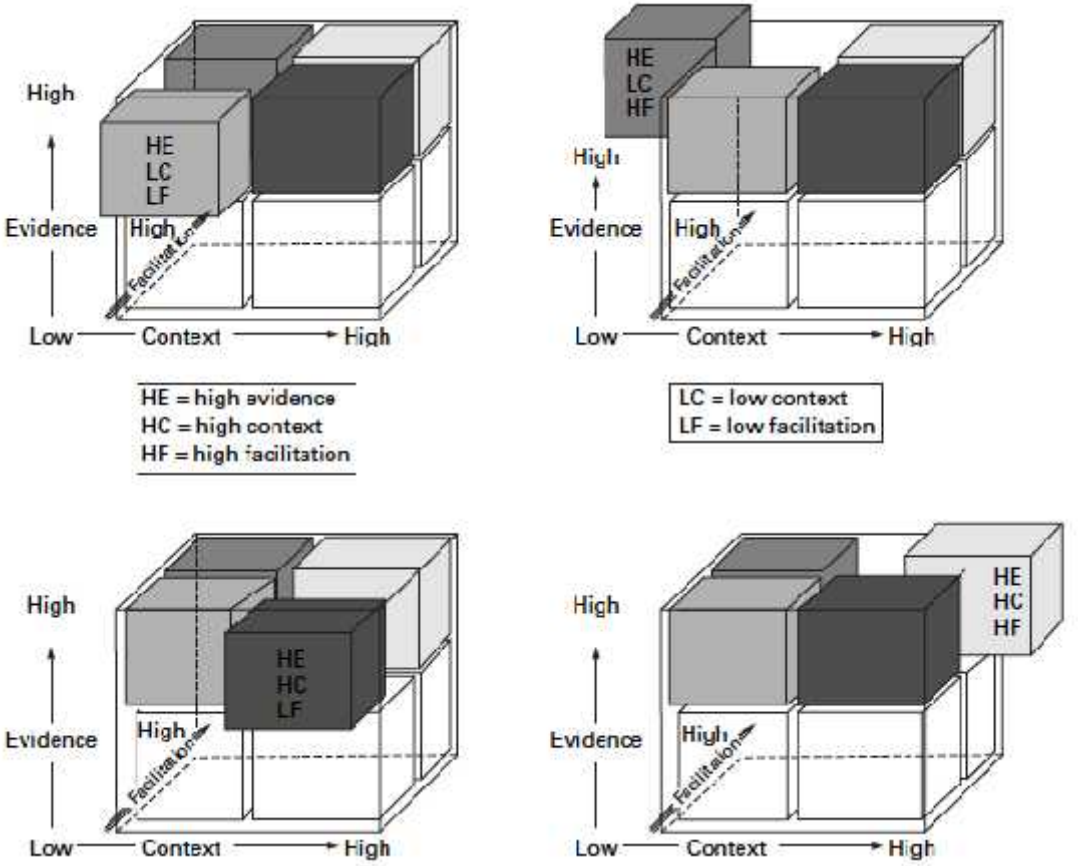
Site mentors

Clinicians

GVSU graduate statistician

PARiHS Framework

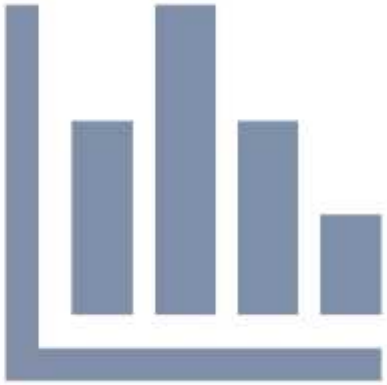
Kitson et al., 1998



Implementation Strategy

- Implementation strategies were guided by the ERIC project
  - Assess for readiness and identify barriers and facilitators
  - Identify and prepare champions
  - Audit and provide feedback

Evaluation & Measures



- Baseline data for 2018 fiscal year
  - total number of patients in ED
  - number of admitted patients
  - median ED length of stay
  - discharge disposition
  - frequent visits/ re-admissions

Evaluation & Measures

- Implementation Metrics
  - birthdate
  - gender
  - diagnosis of a life limiting illness
  - reason for PC referral
  - referring clinician
  - admit date
  - referral date
  - discharge date
  - advanced directive

Qualitative Survey

Please use the following scale:

SA(strongly agree) A(agree) N(neutral) D(disagree) SD(strongly disagree)

1. Prior to this QI project, I was aware that palliative care services were available as a referral in the ED

SA	A	N	D	SD
1	2	3	4	5

2. As a result of the screening tool, I have a better understanding of what patients qualify for PC services.

SA	A	N	D	SD
1	2	3	4	5

3. After this QI project, I believe there are new patients I will be able to identify for PC services.

SA	A	N	D	SD
1	2	3	4	5

4. Is there anything else you would like to share about this process?

Implementation Redesign

- Prior to implementation, the project was postponed
- Modified to retrospective chart review
- Timeline modified
- Measures modified
- Pre- and post-survey was not obtained

Redesigned Measures

- Retrospective Chart Review
  - age
  - prism score
  - screening results (+/-)
  - was a referral made
  - diagnosis of a life limiting illness
  - reason for PC referral
  - admit date
  - referral date
  - discharge date

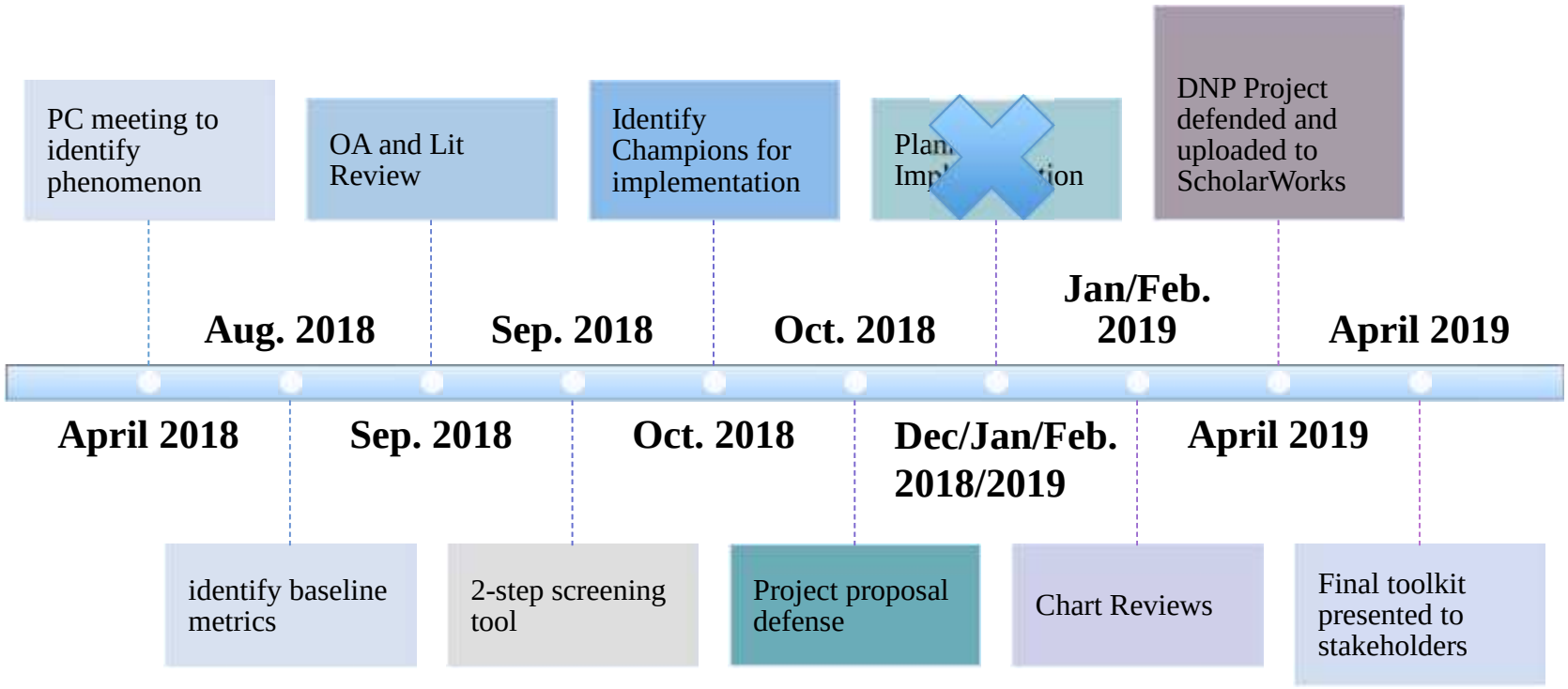
Analysis Plan

DESCRIPTIVE STATISTICS

COMPARISON

TABLES WITH DISTRIBUTION OF VARIABLES

Modified Timeline



Resources & Budget

Table 2: Project Budget

Personnel or Item	Projected hourly wage x time	Cost of item
PC manager	$34.27 x 25 hours	$856.75
PC Medical Director	$127.48 x 25 hours	$3187
PC Program Coordinator	$31.32 x 25	$783
PC MSW	$25.48 x 25	$637
ED Staff (average)	$47 x 2	$94
Statistician (In kind donation)		$100
Net:		**$5557.75**

DNP Student Expenditures		
Program Development	$32.00 x 75	$2400
Program Implementation	$32.00 x 50	$1600
Program Analysis	$32.00 x 50	$1600
Materials Needed		$1500
Net: (In kind donation)		**$7100**
NET Total:		**+ $1542.25**

Results – Methods

- Retrospective chart reviews
- PC screening tool to identify patients that met screening criteria
- Tool-kit was developed for the organization
  - validated two-step palliative care screening tool
  - marketing and educational materials for providers
  - sustainability plan

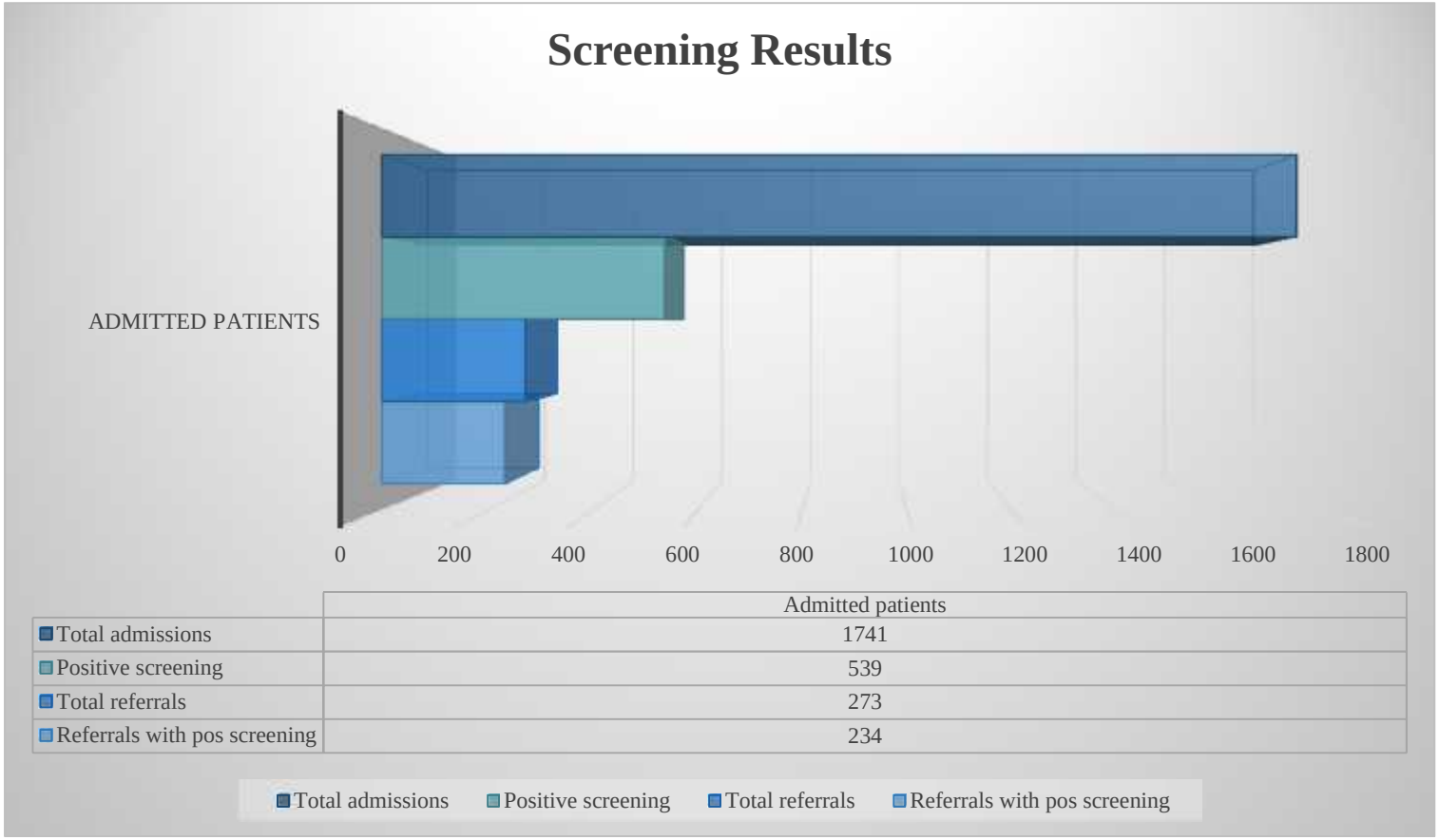
Results – Measures

- Age
- Prism score
- Screening tool (positive or negative)
- Primary diagnosis of life-limiting illness
- Reason for PC referral from screening tool
- Admit time and date
- Referral time and date
- Discharge time and date
- Pre- and post-implementation surveys were not obtained

Results – Analysis

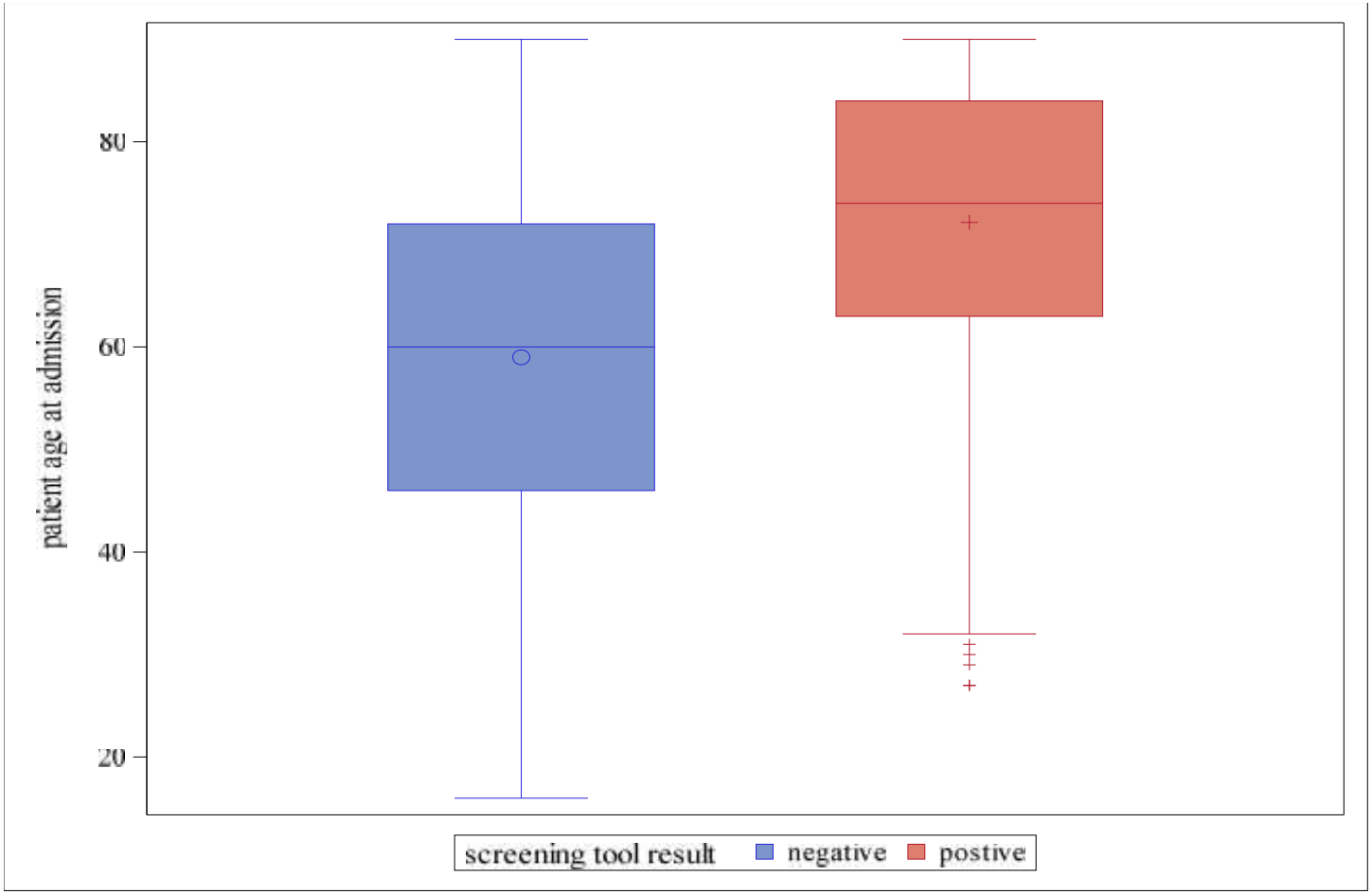
- Descriptive statistics with percentages for outcome evaluation
- Tables were compiled with a distribution of variables
- Indicators were manually recorded and reviewed
  - Excel spreadsheet
  - Analysis by a GVSU graduate statistician

PC Screening Results

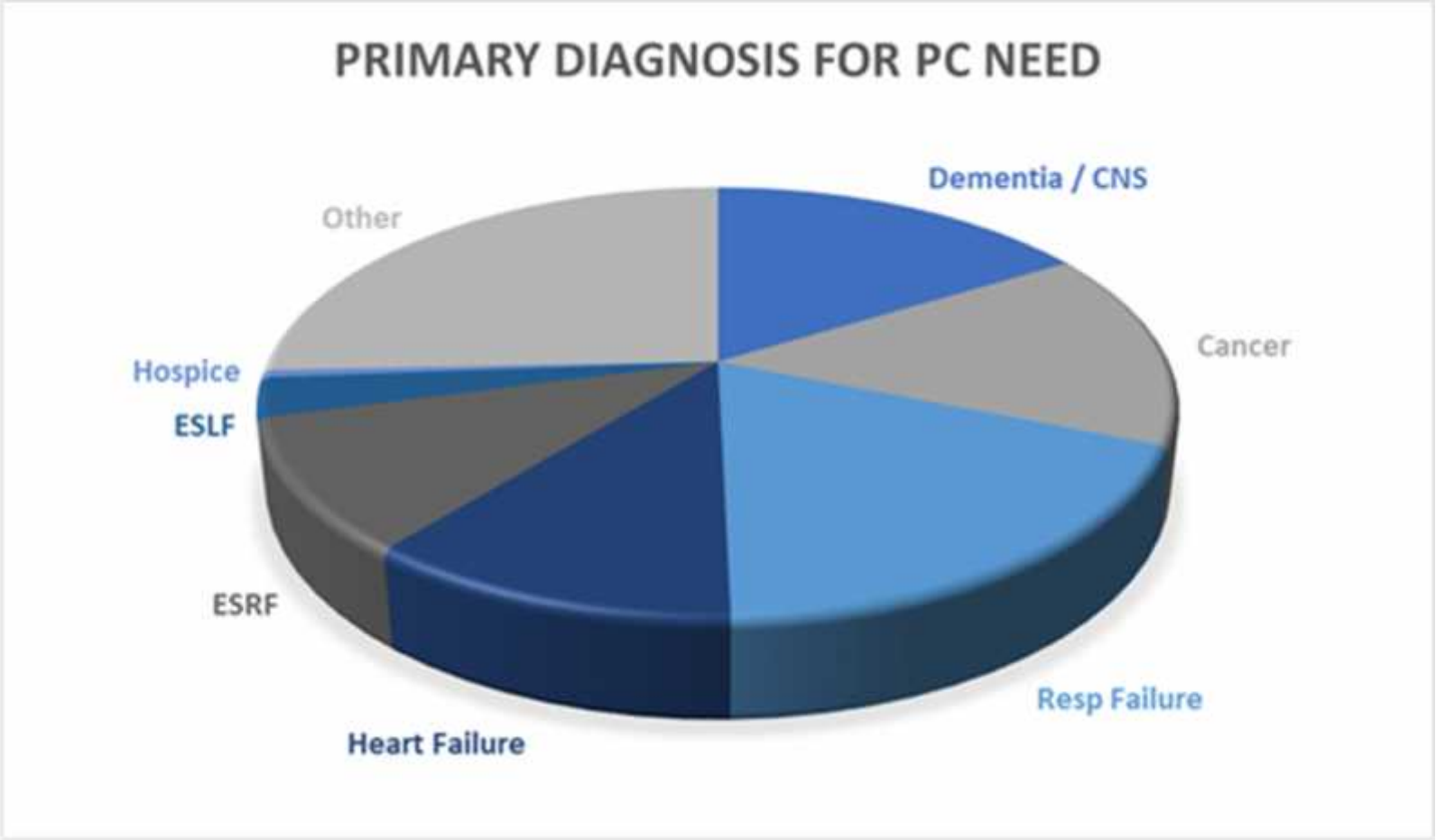


	Admitted patients
Total admissions	1741
Positive screening	539
Total referrals	273
Referrals with pos screening	234

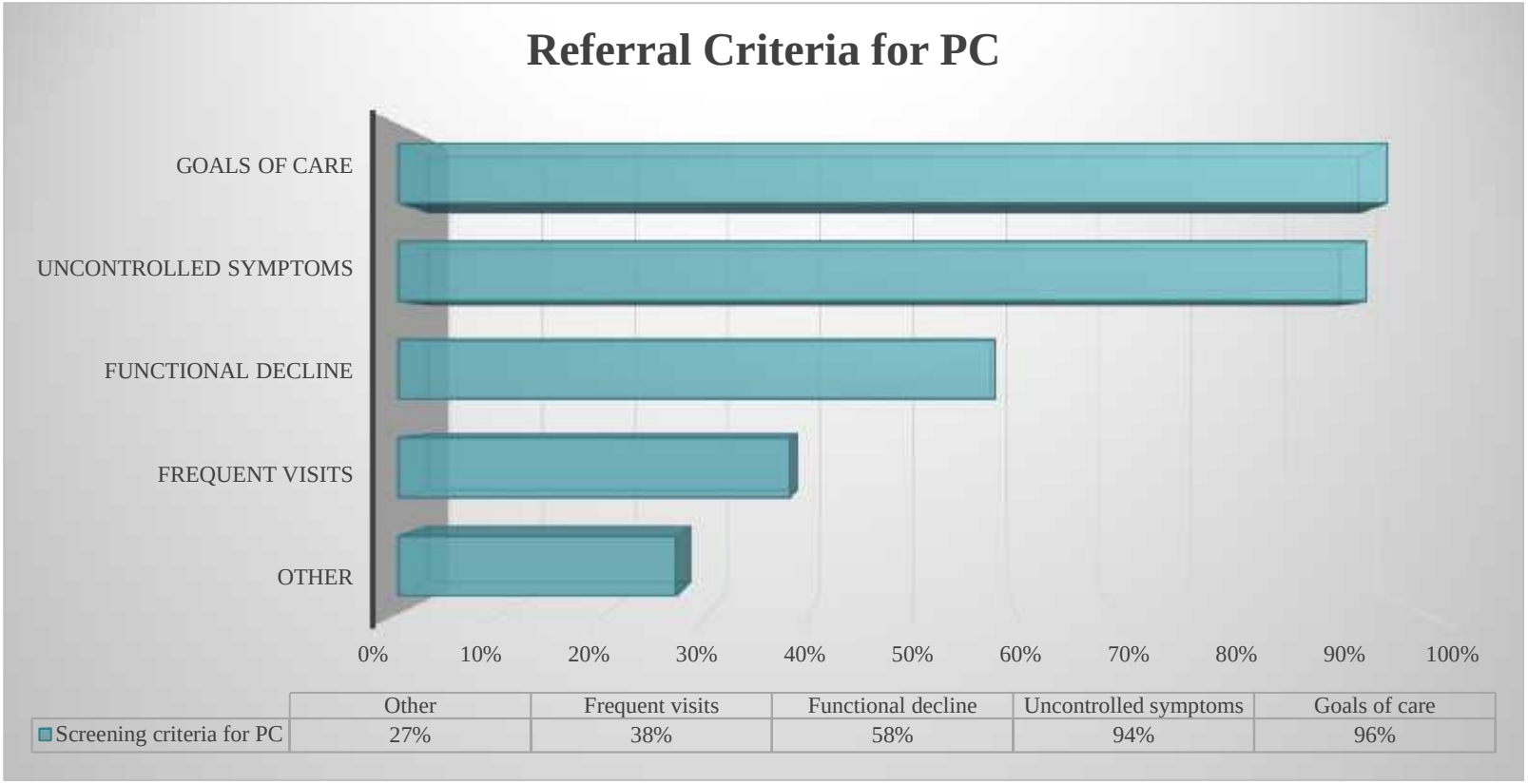
Age


patient age at admission
80
60
40
20
screening tool result
negative
postive

Life-Limiting Diagnosis

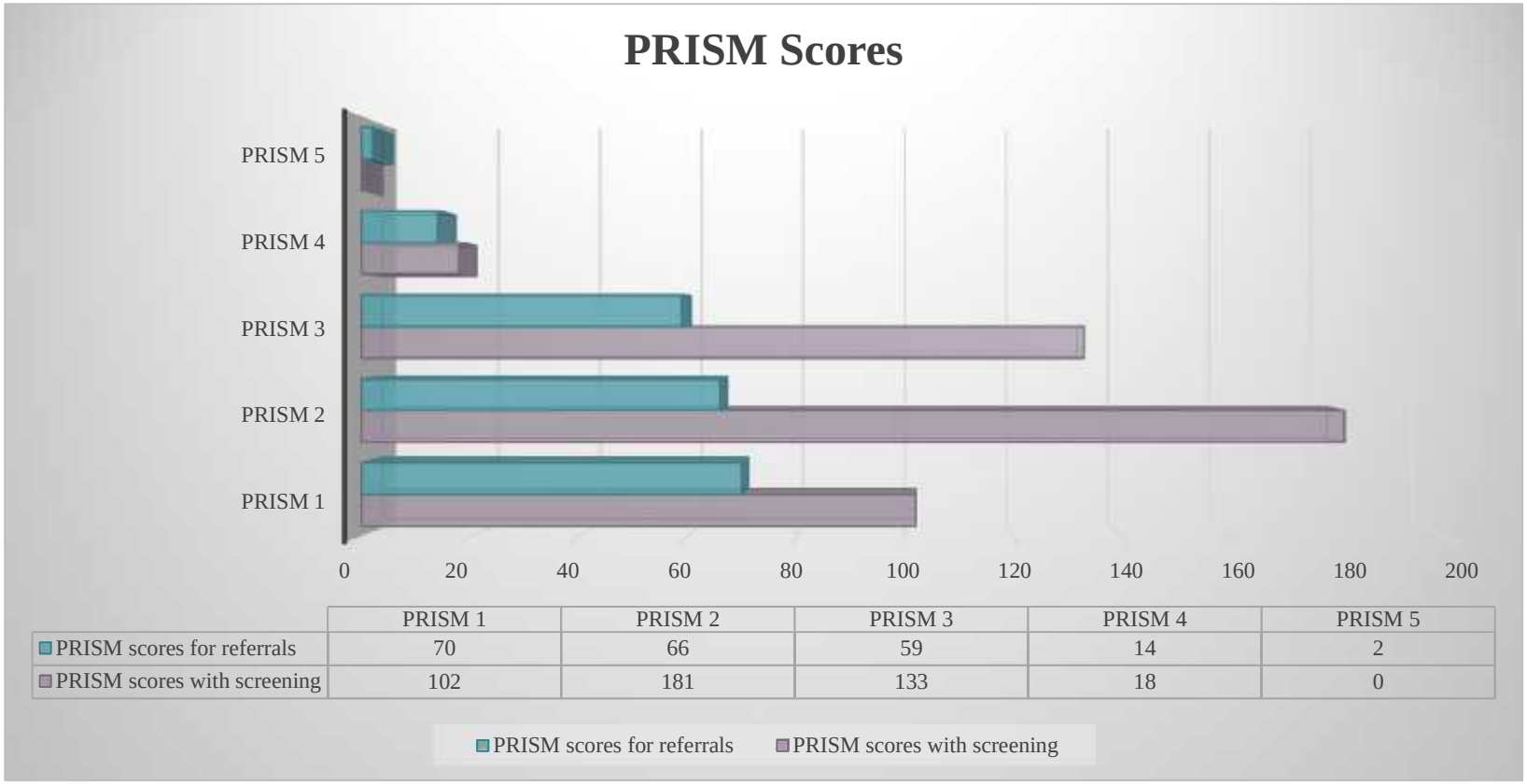


Reason for Referral



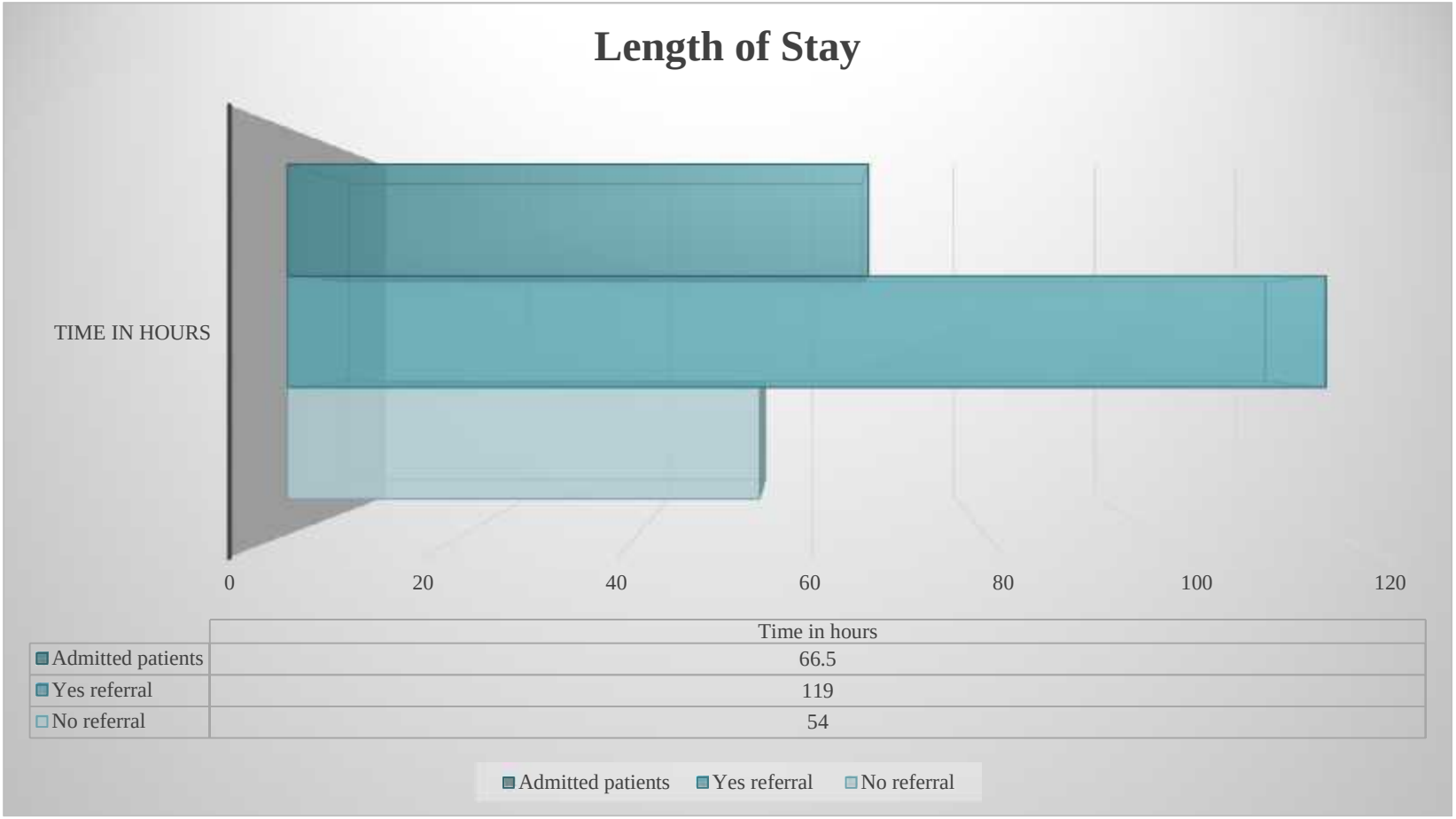
	Other	Frequent visits	Functional decline	Uncontrolled symptoms	Goals of care
Screening criteria for PC	27%	38%	58%	94%	96%

PRISM Scores

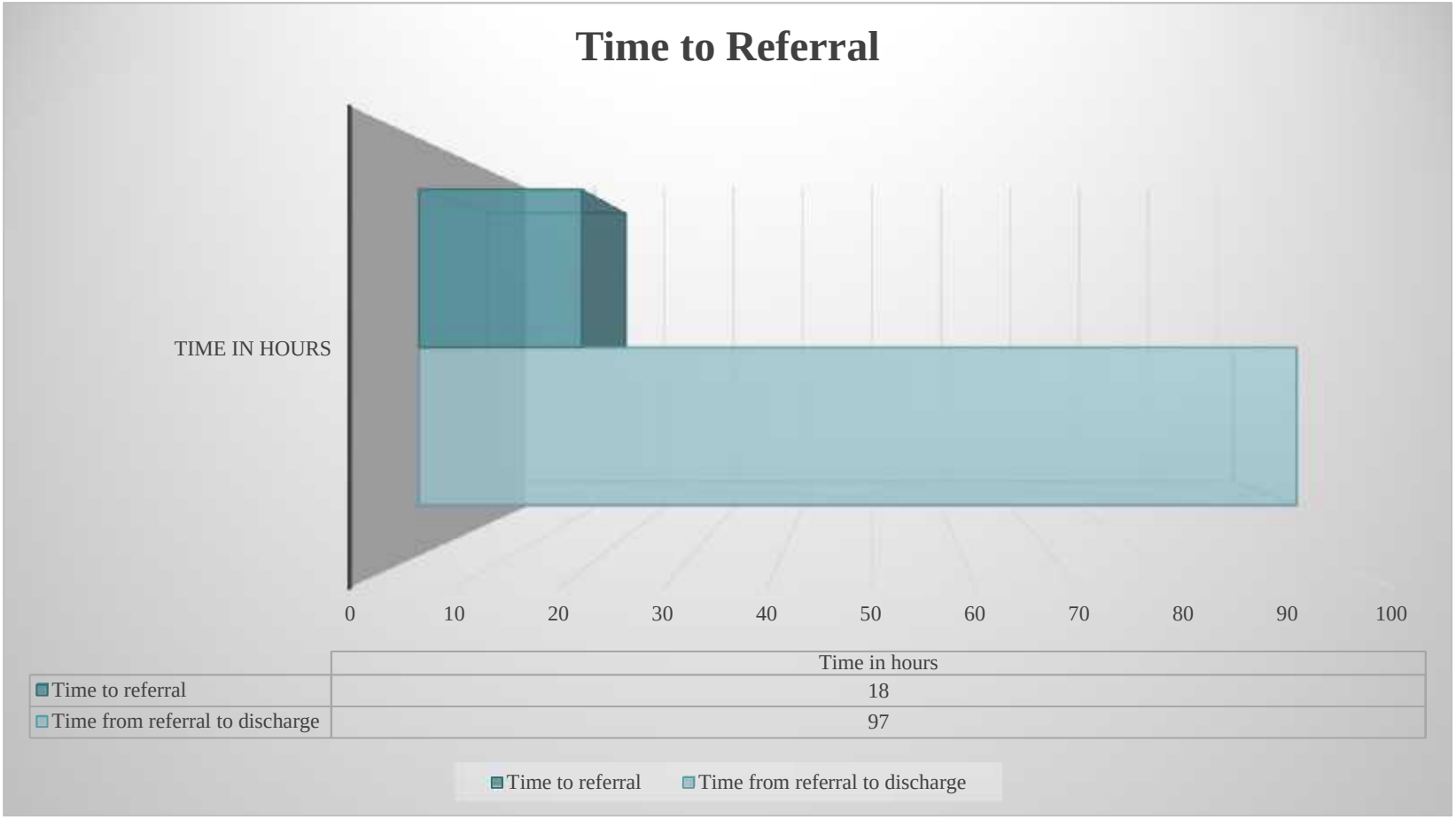


	PRISM 1	PRISM 2	PRISM 3	PRISM 4	PRISM 5
PRISM scores for referrals	70	66	59	14	2
PRISM scores with screening	102	181	133	18	0

Length of Stay



Time to Referral



	Time in hours
Time to referral	18
Time from referral to discharge	97

Discussion

Clinically significant findings

Age and diagnosis – leading cause of death and disability

Implications for Practice

PRISM Mortality Risk Score	Gap in Care identified
• Prism 1: 23% • Prism 2: 42% • Prism 3: 31%	• Positive: 31% • Referred: 13% • 18% positive with no referral

Barriers that Hinder Referrals

- Provider knowledge and support
- Ease of collaboration
- Access to care

Autor, Storey, & Ziemba-Davis, 2013; Perrin & Kazanowski, 2015

Strategies to Improve Referrals

Screening

Defined referral criteria

Provider education

George et al., 2016; Perrin, & Kazanowski, 2015

Limitations

- Time frame allotted for the DNP student
- Postponement modified available metrics
  - disposition status
  - inpatient vs. observation status
- Retrospective chart reviews
- 60-day data collection

Conclusion

- Integration of palliative care screening into standard practice for the ED is highly supported
  - Center to Advance Palliative Care
  - American College of Emergency Physicians
  - American Academy of Hospice and Palliative Medicine
  - Emergency Nurses Association
- Evidence suggests palliative care:
  - improves goals of care
  - augments symptom management
  - decreases health care utilization
- Screening tool is evidence based practice

Sustainability Plan

Expanded to inpatient services

Community based PC program

Key stakeholders ensure continued success

Future DNP student to continue project

Dissemination

- Results presented to PC leadership team
- Public GVSU ‘oral defense’
- Accepted for poster presentation at MiCNP annual conference
- Accepted for poster presentation at MENA spring conference
- Project available on ScholarWorks©
- Annual PC conference

Doctorate of Nursing Practice

- Highest level of educational preparation in nursing
- Integrative practice experiences with immersion focused on translation of evidence into practice
- Address the foundational competencies that are core to all advanced nursing practice roles
- 8 essentials deemed necessary for all graduates of a DNP program regardless of specialty

AACN, 2006

DNP Essentials

Essential I: Scientific Underpinnings for Practice

Literature Review

Essential II: Organizational and Systems Leadership

Org assessment; meetings with key stakeholders

Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice

Data analysis and dissemination of results

DNP Essentials

Essential IV: Information Systems Technology

Retrospective chart reviews with EHR

Essential V: Advocacy for Health Care Policy

Proposed incorporation of PRISM

Essential VI: Interprofessional Collaboration

Collaboration with several disciplines

DNP Essentials

Essential VII: Clinical Prevention and Population Health

- Adults with a life-limiting illness
- Address a potential gap in care

Essential VIII: Advanced Nursing Practice

- Systems thinking in design, implementation strategies, redesign, and evaluation

Questions?

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