Ronald O. Perelman Department of
Emergency Medicine

ADOPTION OF PRIMARY PALLIATIVE CARE FOR EMERGENCY MEDICINE (PRIM-ER) : A MIXED-METHODS STUDY USING RE-AIM

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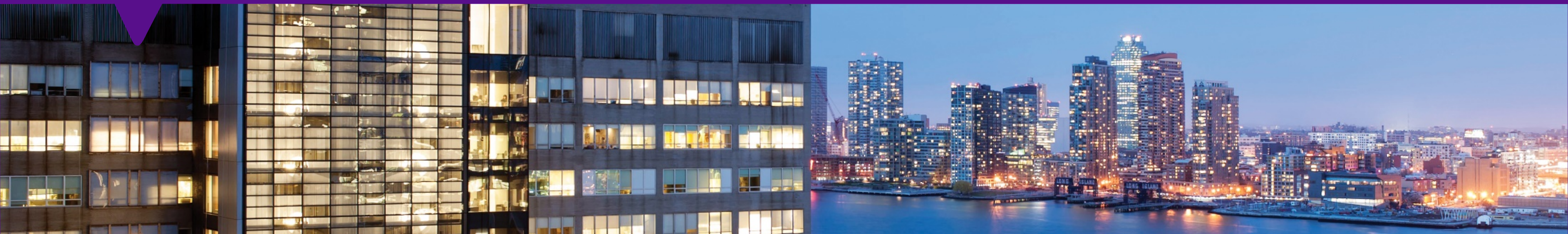

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Emergency Care

- Window to population health
- Research agenda to end disparities and address the needs of society’s most vulnerable

Background

- Increasing ED visits by older adults with serious illness
- Most prefer to receive care at home and to minimize life-sustaining procedures
- Palliative care improves quality of life and decrease health care use

Overall Primary Palliative Care for Emergency Medicine (PRIM-ER) Study Design[1]

- Pragmatic, cluster-randomized stepped wedge design to test the effectiveness of primary palliative care education, training, and technical support in 35 EDs
- Measure the effect using Medicare claims data on:
  – ED disposition to an acute care setting
  – Healthcare utilization 6 months following the index ED visit
  – Survival following the index ED visit

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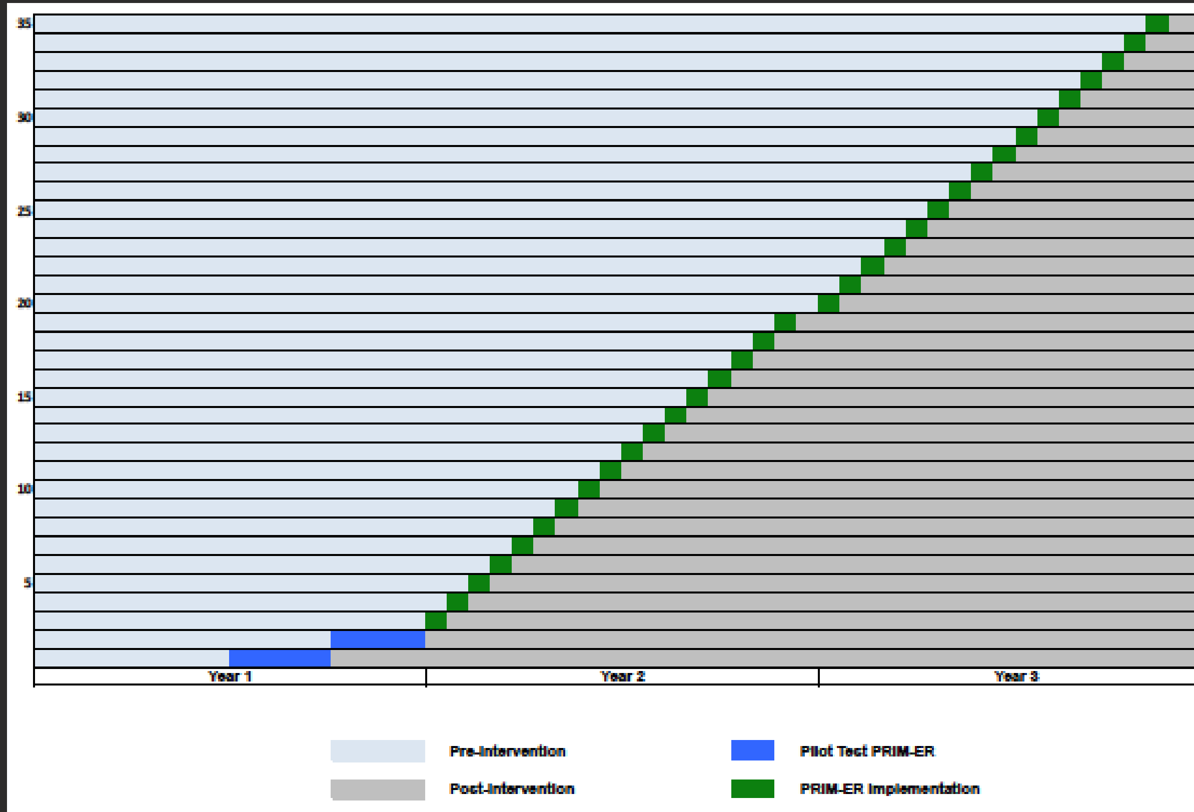
Cluster Randomized, Stepped Wedge Trial @ 35 EDs



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PRIM-ER Intervention Components

1. Evidence-based, multidisciplinary primary palliative care education
   a. Education in Palliative and End-of-life Care (EPEC-EM)
   b. End-of-Life Nursing Education Consortium (ELNEC)
2. Simulation-based workshops on communication in serious illness (EM Talk);
3. Clinical decision support (CDS); and
4. Provider audit and feedback.

PILOT COMPLETED: HOW DID THEY DO IT?

METHODS/RATIONALE

Analysis using RE-AIM Theory[8]

R- Reach

E- Effectiveness

A- Adoption

I- Implementation

M- Maintenance

Filling a gap in RE-AIM

- Few studies use qualitative research to explain “how” and “why” results happened[2,3]
- Lack of reporting on adoption data[2,4,5,6]
- Need for greater understanding of the contextual factors that influence staff and setting adoption of interventions such as organizational climate[4]

Mixed methods approach

- Quantitative data
  - Intervention completion (targets/outcomes)
  - Provider Attitudes and Knowledge Survey at baseline[7]
- Qualitative data
  - 6 interviews representing stakeholders from each site
  - Deductive and inductive coding to identify themes
  - Atlas.ti for data management

RESULTS

Site characteristics

	Location	Inpatient Beds	Admissions	ED Visits	Full-time Emergency Providers	Full-time Emergency Nurses
Site 1	New York-Northern New Jersey Metropolitan Statistical area	531	14,017	84,880	28	89
Site 2	New York-Northern New Jersey Metropolitan Statistical area	1099	14,531	80,045	59	108

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Quantitative results: Education adoption

Intervention Adoption		
	EM Talk No. Providers Trained (%)	ELNEC No. Nurses Trained(%)
Site 1	22 (79%)	70 (79%)
Site 2	54 (92%)	91 (84%)

Qualitative results

1. Institutional leadership support
2. Established quality improvement (QI) processes

Institutional leadership support

"If you don't have leadership support, forget about it."

(Site 1 Physician Champion)

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Institutional leadership support

a) Mandate attendance for educational components
b) Substitute for faculty development
c) Provide protected time for CDS development

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Institutional leadership support

Ex: Mandatory attendance for EM Talk

“Our chairman was like, “If you are off, you are coming. This isn’t an ‘Oh, maybe, yay’ activity. This is: We have a grant. You’re coming.”” (Site 1 Principal Investigator)

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Qualitative results

1. Institutional leadership support
2. **Established quality improvement (QI) processes**

Established QI processes

a) Cross-disciplinary communication
b) Data auditing/performance feedback

Established QI processes

Ex: Data auditing/performance feedback

"We really track our issues on a white board right outside the ED […] It's very front and center. We give a lot of personalized feedback to our attendings." (Site 2 Principal Investigator)

D&I IMPLICATIONS

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35 EDs, 18 Health Systems

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Conclusions

1. Mandate training sessions
2. Schedule PRIM-ER education into dedicated faculty development time
3. Provide protected time for PRIM-ER trainings and CDS development
4. Build on existing QI processes to enhance cross-disciplinary communication and CDS integration

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References

1. Grudzen CR, Brody AA, Chung FR, et al. Primary Palliative Care for Emergency Medicine (PRIM-ER): Protocol for a Pragmatic, Cluster-Randomised, Stepped Wedge Design to Test the Effectiveness of Primary Palliative Care Education, Training and Technical Support for Emergency Medicine. BMJ Open. 2019;9:e030099.

2. Gaglio B, Shoup JA, Glasgow RE. The RE-AIM framework: a systematic review of use over time. Am J Public Heal. 2013;103:e38-46.

3. Holtrop JS, Rabin BA, Glasgow RE. Qualitative approaches to use of the RE-AIM framework: rationale and methods. BMC Heal Serv Res. 2018;18:177.

4. Glasgow RE, Harden SM, Gaglio B, et al. RE-AIM Planning and Evaluation Framework: Adapting to New Science and Practice With a 20-Year Review. Front Public Heal. 2019;7:64.

5. Kessler RS, Purcell EP, Glasgow RE, Klesges LM, Benkeser RM, Peek CJ. What does it mean to “employ” the RE-AIM model? Eval Heal Prof. 2013;36:44-66.

6. Harden SM, Gaglio B, Shoup JA, et al. Fidelity to and comparative results across behavioral interventions evaluated through the RE-AIM framework: a systematic review. Syst Rev. 2015;4:155.

7. Bradley, E. H. *et al.* Physicians’ ratings of their knowledge, attitudes, and end-of-life-care practices. *Acad. Med.* **77**, 305–11 (2002).

8. Glasgow, R. E., Vogt, T. M. & Boles, S. M. Evaluating the public health impact of health promotion interventions: the RE-AIM framework. *Am J Public Heal.* **89**, 1322–1327 (1999).

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THANK YOU!

Questions?

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