



Community-Academic Collaborative Project Example: Opioid Seeking in the Emergency Department

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PROGRAM OF EXCELLENCE
IN **ADDICTIONS**
RESEARCH

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Disclosures and Conflicts of Interest

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Collaborative
Action
Toward
Community
Health

*National Drug Abuse Treatment
Clinical Trials
Network* 



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Opioids in the ED

- The problem of identifying opioid-seeking in the emergency department
- Dr. Darin Neven, an ED physician came up with a program called Consistent Care to better help people get the care they need
- There was some basic pilot data from his patients...
- Did a simple analysis, and it appeared to have a clear impact...



Opioids in the ED

COST-EFFECTIVE: EMERGENCY DEPARTMENT CARE COORDINATION WITH A REGIONAL HOSPITAL INFORMATION SYSTEM

Sean M. Murphy, PHD* and Darin Neven, MS, MD†

□ Abstract—Background: Frequent and unnecessary utilization of the emergency department (ED) is often a sign of serious latent patient issues, and the associated costs are shared by many. Helping these patients get the care they need in the appropriate setting is difficult given their complexity, and their tendency to visit multiple EDs. Study Objective: We analyzed the cost-effectiveness of a multidisciplinary ED-care-coordination program with a regional hospital information system capable of sharing patients' individualized care plans with cooperating EDs. Methods: ED visits, treatment costs, cost per visit, and net income were assessed pre- and postenrollment in the program using nonparametric bootstrapping techniques. Individuals were categorized as *frequent* (3–11 ED visits in the 365 days preceding enrollment) or *extreme* (≥ 12 ED visits) users. Regression to the mean was tested using an adjusted measure of change. Results: Both *frequent* and *extreme* users experienced significant decreases in ED visits (5 and 15, respectively; 95% confidence intervals [CI] 2–5 and 13–17, respectively) and direct-treatment costs (\$1285; 95% CI \$492–\$2364 and \$6091; 95% CI \$4298–\$8998, respectively), leading to significant hospital cost savings and increased net income (\$431; 95% CI \$112–\$878 and \$1925; 95% CI \$1093–\$3159, respectively). The results further indicate that fewer resources were utilized per visit. Regression to the mean did not seem to be an issue. Conclusions: When examined as a whole, research on the program suggests that expanding it would be an efficient allocation of hospital, and possibly societal, resources. © 2014 Elsevier Inc.

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- This community-academic partnership turned out to be enormously successful and discussions with the state began on how it might inform policy
- We were then able to apply for funding from the CDC for a more rigorous evaluation
- The project again included both a clinical outcomes component and a cost effectiveness component



A Comprehensive Approach to Address the Prescription Opioid Epidemic in Washington State: Milestones and Lessons Learned

An epidemic of morbidity and mortality has swept across the United States related to the use of prescription opioids for chronic noncancer pain. More than 100 000 people have died from unintentional overdose, making this one of the worst manmade epidemics in history.

Much of health care delivery in the United States is regulated at the state level; therefore, both the cause and much of the cure for the opioid epidemic will come from state action.

We detail the strong collaborations across executive health care agencies, and between those public agencies and practicing leaders in the pain field that have led to a substantial reversal of the epidemic in Washington State. (*Am J Public Health*. 2015; 105:463–469. doi:10.2105/AJPH.2014.302367)

Gary Franklin, MD, MPH, Jennifer Sabel, PhD, Christopher M. Jones, PharmD, MPH, Jaymie Mai, PharmD, Chris Baumgartner, BS, Caleb J. Banta-Green, PhD, MPH, MSW, Darin Neven, MD, MS, and David J. Tauben, MD

PRESCRIPTION OPIOID–related morbidity and mortality constitute a national public health crisis, requiring an urgent need for more effective policy responses.^{1,2} States play a central role in protecting public health and public safety; regulate health care and practice of health professions; are primary payers of health care through Medicaid, state employee benefits, corrections, and workers' compensation; and manage prescription drug monitoring programs. Therefore, state-level action is critical to reversing the prescription drug overdose epidemic.³

In recent years, a number of states have engaged in efforts to address prescription drug overdose. Documentation of state

experience in implementing interventions and their impacts is greatly needed. This information can inform other states' efforts and prevent them from pursuing policies that have minimal impact. Washington State has been an innovative leader in efforts to reduce prescription drug overdose. In this article, we detail Washington's experience to comprehensively address this serious public health threat.

THE ORIGINS OF THE EPIDEMIC IN WASHINGTON STATE

Use of chronic opioid therapy was historically reserved for patients with cancer or end-of-life pain. The shift toward more liberal use of opioids

for chronic, noncancer pain (CNCP) began in the mid- to late 1980s when an early case series suggested that patients with CNCP, if well chosen, could take opioids long term safely and with few severe problems (e.g., abuse or addiction).⁴ On the basis of this study and similar studies, pain advocacy groups and specialists sought state-based regulatory changes to reverse perceived undertreatment of chronic pain.⁵ These organizations successfully lobbied state medical boards and legislatures to change statutes and regulations to ensure more permissive use of opioids in the CNCP population, and to reduce the risk of sanction for prescribers. By January 2003, only 5 states and the District of Columbia had not changed their statutes or regulations.⁶



Opioids in the ED

A RANDOMIZED CONTROLLED TRIAL OF A CITYWIDE EMERGENCY DEPARTMENT CARE COORDINATION PROGRAM TO REDUCE PRESCRIPTION OPIOID RELATED EMERGENCY DEPARTMENT VISITS

Darin Neven, MS, MD,^{††} Leonard Paulozzi, MD, MPH,[‡] Donelle Howell, PhD,^{*} Sterling McPherson, PhD,[§] Sean M. Murphy, PhD,^{**||} Becky Grohs, RN, BSN, CCM,^{*} Linda Marsh, RN, BSN, CCM,[¶] Crystal Lederhos, MS,^{*} and John Roll, PhD^{*}

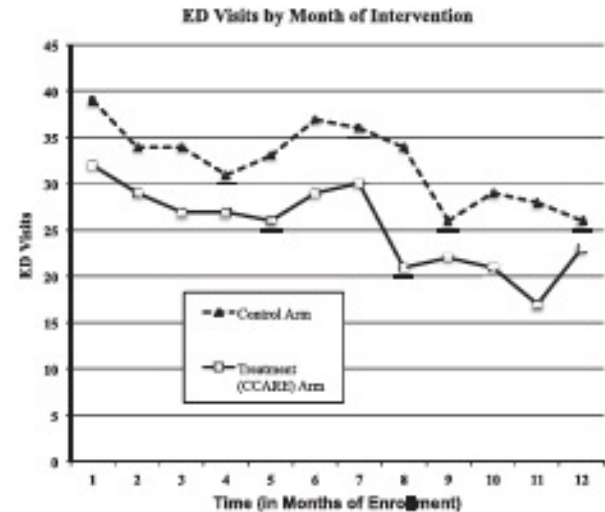
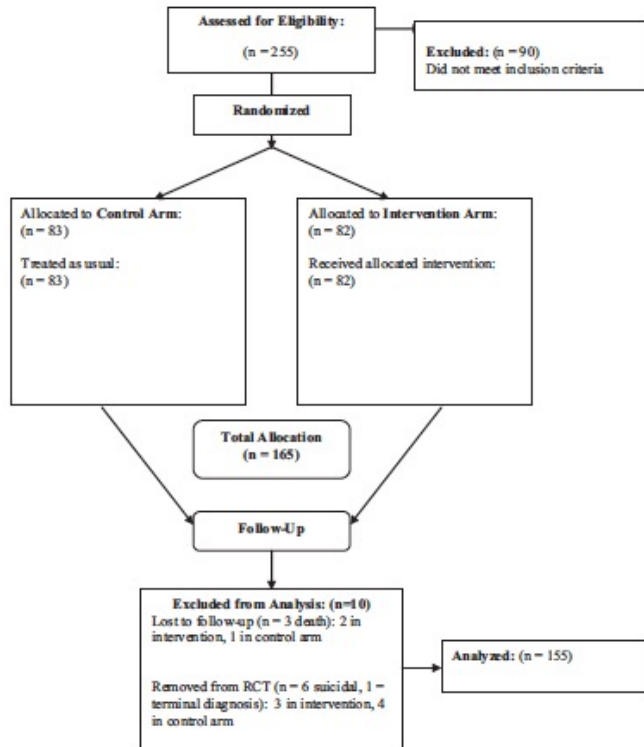


Figure 2. Emergency department (ED) visits across 12-month treatment period between control and treatment arms. Citywide ED Care Coordination Care Trial, March 2012 to July 2013.

Figure 1. Consort diagram for eligibility assessment and randomization to one of two treatment arms for the clinical trial. Citywide ED [Emergency Department] Care Coordination Care Trial, March 2012 to July 2013. RCT = randomized controlled trial.



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Opioids in the ED

□ **Abstract—Background:** Increasing prescription overdose deaths have demonstrated the need for safer emergency department (ED) prescribing practices for patients who are frequent ED users. **Objectives:** We hypothesized that the care of frequent ED users would improve using a citywide care coordination program combined with an ED care coordination information system, as measured by fewer ED visits by and decreased controlled substance prescribing to these patients. **Methods:** We conducted a multisite randomized controlled trial (RCT) across all EDs in a metropolitan area; 165 patients with the most ED visits for complaints of pain were randomized. For the treatment arm, drivers of ED use were identified by medical record review. Patients and their primary care

All authors report no conflict of interest except Darin Neven and Becky Grohs. Darin Neven reports owning a medical practice performing ED care coordination that was created after completion of this clinical trial, and Becky Grohs reports working for this practice as the clinical director. Darin Neven also re-

providers were contacted by phone. Each patient was discussed at a community multidisciplinary meeting where recommendations for ED care were formed. The ED care recommendations were stored in an ED information exchange system that faxed them to the treating ED provider when the patient presented to the ED. The control arm was subjected to treatment as usual. **Results:** The intervention arm experienced a 34% decrease (incident rate ratios = 0.66, $p < 0.001$; 95% confidence interval 0.57–0.78) in ED visits and an 80% decrease (odds ratio = 0.21, $p = 0.001$) in the odds of receiving an opioid prescription from the ED relative to the control group. Declines of 43.7%, 53.1%, 52.9%, and 53.1% were observed in the treatment group for morphine milligram equivalents, controlled substance pills, prescriptions, and prescribers, respectively. **Conclusion:** This RCT showed the effectiveness of a citywide ED care coordination program in reducing ED visits and controlled substance prescribing. © 2016 The Author(s). Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

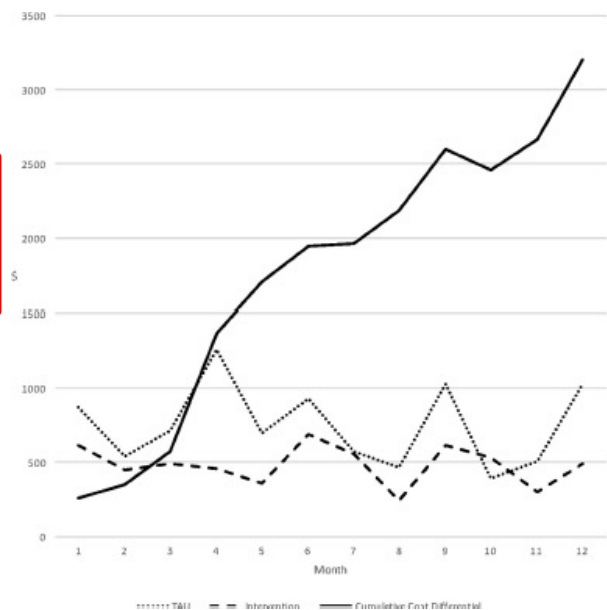


Opioids in the ED

A RANDOMIZED CONTROLLED TRIAL OF A CITYWIDE EMERGENCY DEPARTMENT CARE-COORDINATION PROGRAM TO REDUCE PRESCRIPTION OPIOID-RELATED VISITS: AN ECONOMIC EVALUATION

Sean M. Murphy, PhD,[†] Donelle Howell, PhD,[†] Sterling McPherson, PhD,[†] Rebecca Grohs, RN, BSN, CCM,[†] John Roll, PhD,[†] and Darin Neven, MS, MD[†]

charged from the ED. Results: By the end of month 4, the mean cumulative cost differential was significantly lower for intervention relative to treatment-as-usual participants ($-\$1370$; $p = 0.03$); this figure climbed to $-\$3200$ ($p = 0.02$) by the end of month 12. The ROI trended upward throughout the observation period, but failed to reach statistical significance by the end of month 12 (ROI = 3.39, $p = 0.07$). Conclusion: The intervention produced significant



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- This community-academic partnership continued to inform public policy and Dr. Neven became a key driving influence in the state

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ORIGINAL ARTICLE

The Development of the Washington State Emergency Department Opioid Prescribing Guidelines

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Russell J. Carlisle**



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Follow-Up Work

- The partnership has led to several follow-on projects not specifically about opioids, but related to ED utilization for Dr. Neven's group
 - Being asked to conduct evaluations of several difference programs for a variety of entities
- This serves as one example of how such a community-academic partnership can lead to big changes in our region and our state





Thank you for your attention

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