

# Treating, Educating, and Evaluating for Total HIV Oral Health (Project TEETH)

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## Introduction

Montefiore Medical Center (MMC) is an urban demonstration site for the Oral Health Initiative. The patient population are persons diagnosed with HIV, persons at-risk for HIV, and families receiving health services at MMC's community health centers (CHCs) in the Bronx, NY.

The project is designed as an integrative model of dental services and medical primary care. The fundamental goal is to improve the delivery of oral health services to the HIV+ population in the targeted communities, creating a more comprehensive care package for MMC's HIV+ patient population.

The Treating, Educating, and Evaluating for Total HIV Oral Health (Project TEETH) program is a collaborative effort between three MMC departments. The program integrates the service delivery resources of the (1) CICERO program, the Ryan White Part C funded HIV early intervention program that operates in ten community-based facilities managed by the Montefiore Medical Group (MMG2) and the (2) MMC Dental Department that operates dental services throughout the medical center and (3) MMC/AECOM Department of Family and Social Medicine that provides evaluation resources and expertise, in addition to program development expertise.

## Methods

The quantitative multi-site evaluation (MSE) includes assessments of barriers and facilitators to oral health care use, self-care practices, and quality of life. Surveys include both baseline and follow up assessments, conducted at 6-month intervals. The surveys are administered by either the Patient Navigator/Research Assistant/Social Worker Assistant (at fixed sites) or the Dental Hygienist (on the mobile dental unit, or MDU). Follow up interview data continue to be collected through Year 4 & 5. The qualitative MSE was developed to examine beliefs, attitudes, and practices of HIV positive individuals and their impact on access to and utilization of oral health care services. All MSE interviews were concluded in Year 4.

The local evaluation integrates two paradigms currently being used in chronic care to implement, improve, and monitor the delivery of health care. The first is the R (reach) E (effectiveness) A (adoption) I (implementation) M (maintain) framework of Russell Glasgow and associates, while the second is the Quality Improvement (QI) framework of the Institute for Health Care Improvement. These frameworks are supplemented through qualitative research activities whose analysis altogether informs further program evolution and refinement. Quantitative data regarding the number of patients screened and served, the number of physicians referring patients, and oral health utilization are collected via various data instruments.

## Results

To date, MMC Patient Navigators (PNs) have touched a significant percentage of MMC CICERO patients\*. Between 2007-2009, the PNs interacted with 36% of the MMC HIV+ CICERO population (figure 1). Eight percent of patients who the PNs interacted with and navigated to dental care had a dental visit between 2007-2009 (figure 2). Patients who the PNs navigated to dental care had lower viral load counts, inpatient visits, and ED visits than non-navigated patients (figure 3). As of the close of the MSE study, the PNs have recruited 63 patients into the study. Seventy one, 41, and 60 percent of MSE patients have completed 6, 12, and 18-month follow up interviews, respectively (figure 4). Twenty one percent of MSE study patients have completed their dental treatment plans (figure 5). Fifty-eight percent of CICERO patients remain without a documented oral health visit (figure 6).

\*CICERO cohort = HIV+ patients who receive care at the 10 MMC sites. Represents the 2007 & 2008 patient cohort.

Figure #1

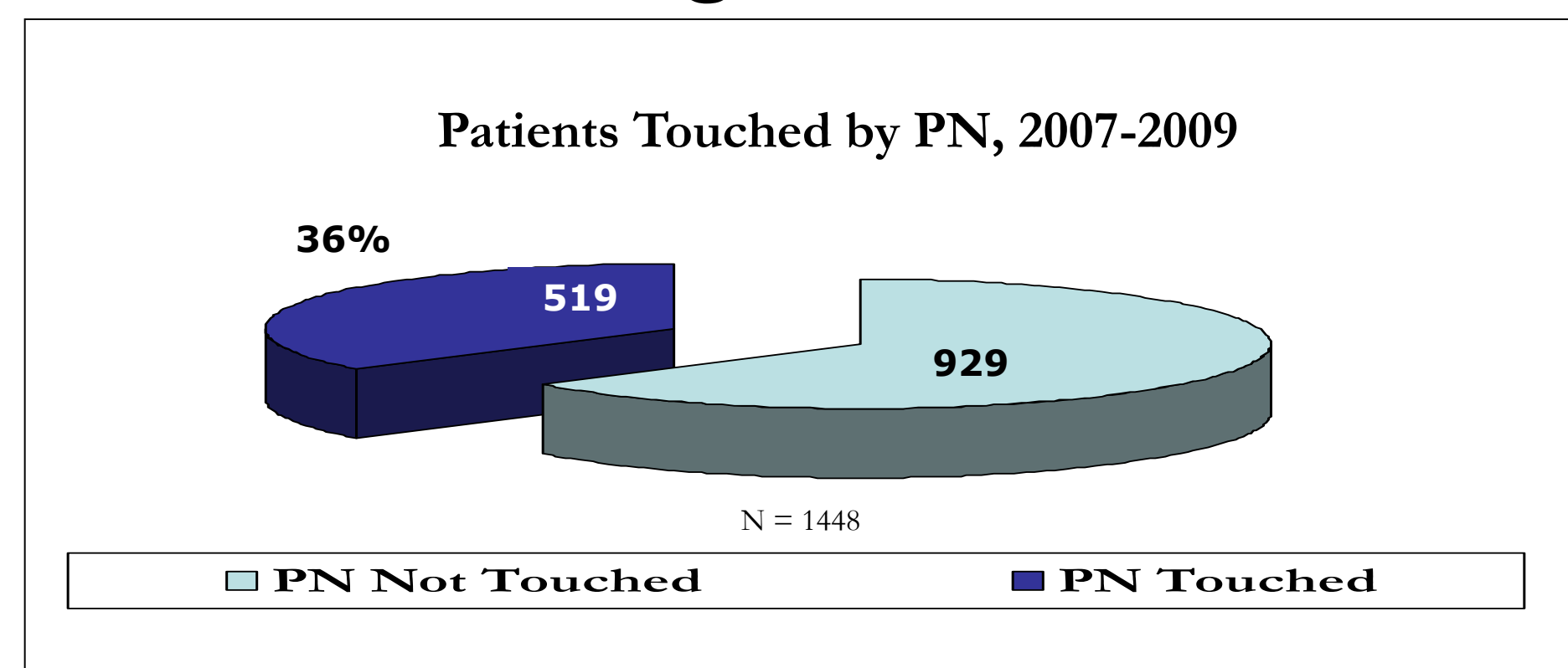


Figure #2

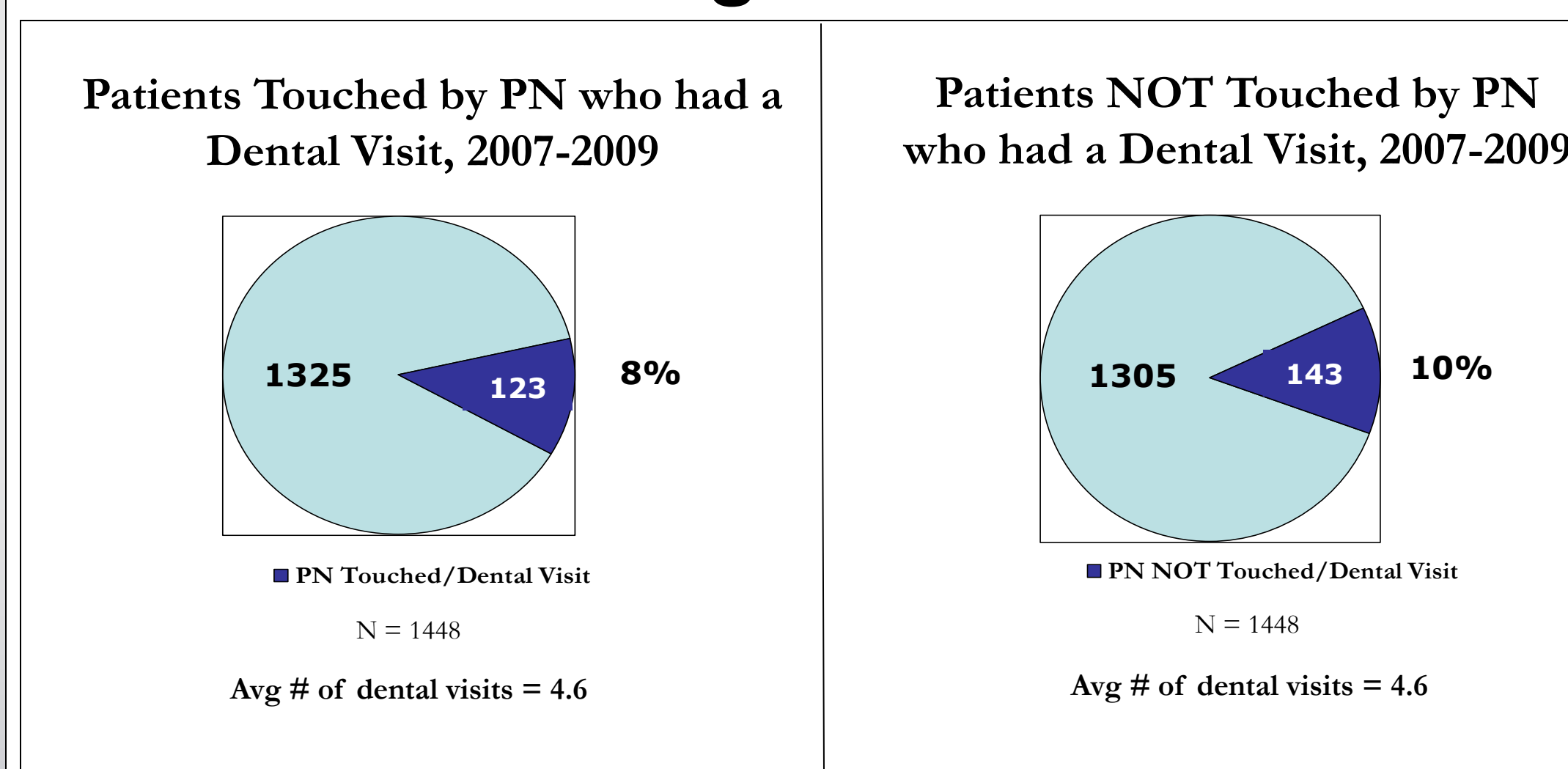


Figure #3

	Patients Touched by PN with a Dental Visit	Patients NOT Touched by PN with a Dental Visit	Patients Touched by PN with a Dental Visit, Multi-Site
Nadir CD4 Mean	203.6	242.9	175.5
Last Viral Load	10,904	17,060	8,216
Last CD4 Mean	432	461	404
Inpatient Visits	40.7%	43.4%	38.1%
ED Visits	61%	66.4%	61.9
<b>N</b>	<b>123</b>	<b>143</b>	<b>63</b>

Figure #4

	Multi-Site Patient Retention Rate (Follow Up), 2010
6 month	71.4%
12 month	41.4%
18 month	60.0%

Figure #5

Multi-Site Patients with Completed Treatment Plans, March 2009

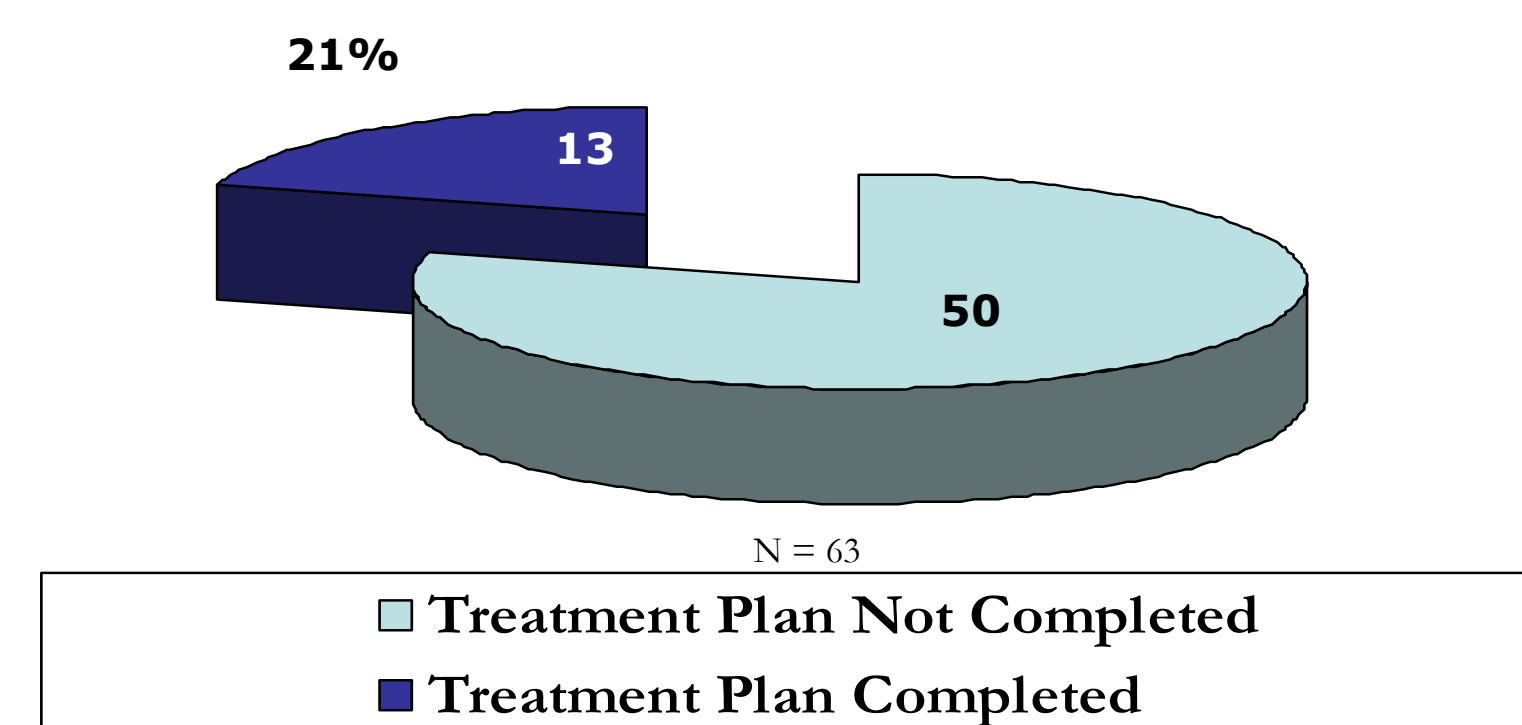
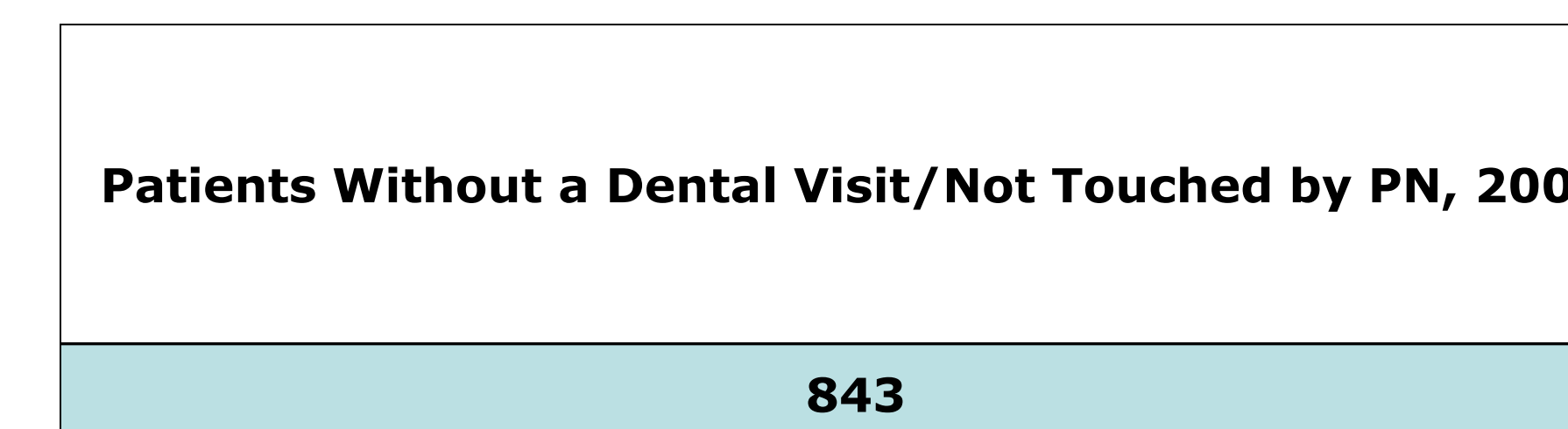


Figure #6



## Conclusions

An integrated medical and dental primary care model that includes intensive patient navigation can improve care outcomes for underserved HIV+ populations. Project TEETH has yielded some positive results, however, significant improvement is still needed to achieve MSE and local evaluation goals. The successes, barriers, and 2010-2011 action items are highlighted below.

Item	Successes	Barriers/Areas for Further Improvement
Patient Navigation	<ul style="list-style-type: none"> <li>PNs have interacted with 36% of our patient population, over the past 2 1/2 years.</li> <li>PNs have a good rapport with patients and are successful at helping patients realize the importance of dental care.</li> <li>PNs successfully navigate patients to medical care, in addition to dental care.</li> </ul>	<ul style="list-style-type: none"> <li>Operational barriers such as lack of access to dental appointment systems, impede PN efficiency.</li> <li>64% of CICERO patients have not yet interacted with the PNs.</li> </ul>
Documentation	<ul style="list-style-type: none"> <li>Dental staff are currently developing documentation improvement strategies and work plans.</li> </ul>	<ul style="list-style-type: none"> <li>Perio-charting is not completed or documented consistently.</li> <li>Treatment plans are not completed or documented consistently.</li> <li>79% of MMC MSE study patients have not completed their treatment plans.</li> <li>58% of CICERO patients still need a documented oral health visit.</li> </ul>
Follow Up Retention	<ul style="list-style-type: none"> <li>PNs consistently follow up with patients and try to prevent loss to follow up. They are adept at tailoring communication strategies to individual patient needs.</li> </ul>	<ul style="list-style-type: none"> <li>Recalls are not performed consistently by the dental staff.</li> <li>MSE retention rates remain below the 80% target.</li> </ul>

Objective	Key Action Items	Timeline
Increase Referrals to the Mobile Dental Unit (MDU)	<ul style="list-style-type: none"> <li>Create reports that facilitate greater "inreach" at the MDU sites.</li> <li>Create site-specific monitoring &amp; evaluation reports that track referrals and utilization.</li> <li>Increase accountability, so that staff consistently reports on progress and outcomes.</li> </ul>	•Complete by 8/2010
Improve Documentation	<ul style="list-style-type: none"> <li>Educate and train dental staff on proper treatment completion and perio-charting documentation.</li> <li>Create automated treatment plan buttons and prompts in the dental record.</li> <li>Educate and train PNs and medical staff to document oral health referrals/visits in medical charts and AIDS databases.</li> </ul>	•Complete by 8/2010
Increase Follow Up Retention	<ul style="list-style-type: none"> <li>Continue to develop patient-specific (tailored) communication strategies to increase retention.</li> <li>Create an automated recall/reminder system that prompts dental staff to conduct recalls in a timely manner.</li> </ul>	•Complete by 6/2010

Acknowledgments: Montefiore Medical Group; Albert Einstein College of Medicine; Boston University ECHO Team; Montefiore Dental Department; Ryan White Care Act