Cooperative Education: A Transprofessional Education Model for Oral Health and Primary Care Practice Integration



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Learning Outcomes

- Describe a cooperative (Co-op) education model for integrating oral health and primary care.
- Apply innovative interprofessional practice and education strategies to promote oral health integration.



Bouvé College of Health Sciences 2,800 students 205 full-time faculty 3 Schools

Innovations *in* Oral Health: **Technology, Instruction, Practice, Service**



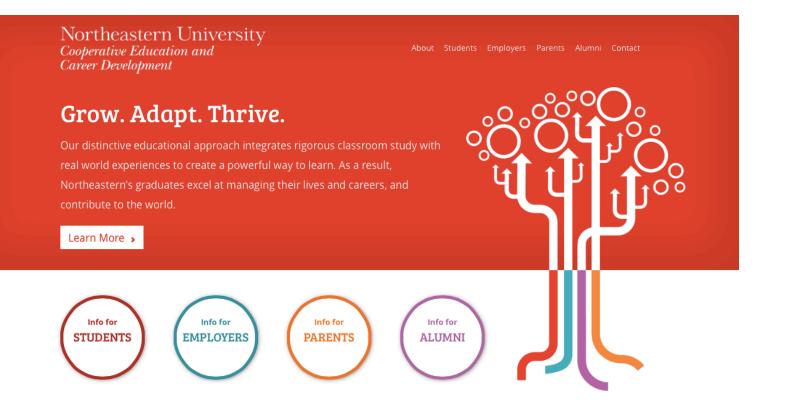


Improve Workforce Training and Capacity Building

- Primary care
- Rural and medically underserved areas
- Preventive medicine
- Public health
- Behavioral health
- Oral health
- Team management of chronic disease



Co-operative Education



http://www.northeastern.edu/coop/

Patient-Centered Medical Home



Strategies to Put Patients at the Center of Primary Care



BOSTON HEALTH CARE for the HOMELESS PROGRAM



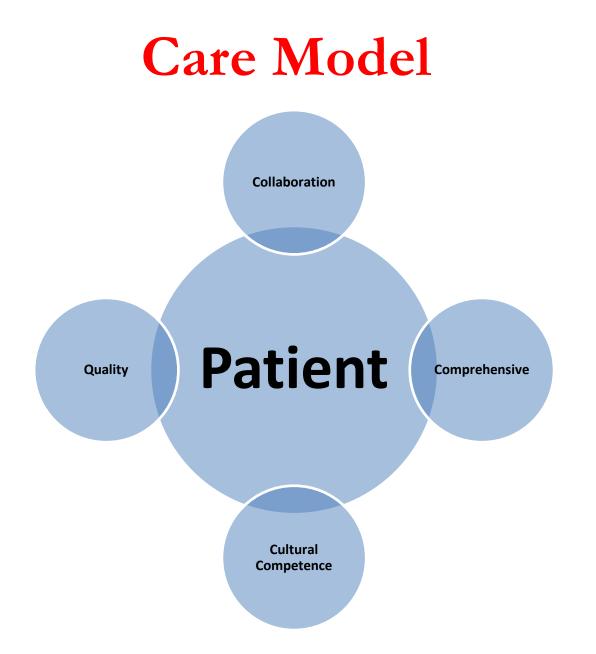
BHCHP Mission

Access to the highest quality health care for Boston's homeless men, women & children





Photos courtesy of J O'Connell





Oral Health in the Homeless Population

- Homeless people have poorer oral health than the general population. (IOM, 2011)
- Dental care is the most commonly reported unmet need. (Baggett et al., 2010)
- Conditions are more often severe when diagnosed
- More likely to engage in behaviors detrimental to oral health such as:
 - Smoking and using other types of tobacco products (Conte et al., 2006; Gibson et al., 2003),
 - Heavy alcohol use (Gibson et al., 2003), and substance abuse (Chi and Milgrom, 2008).



- 12,500 patients/year
- 104-bed medical respite unit
- 2 Teaching Hospitals
- 50
 - Shelters
 - Treatment programs
 - Soup kitchens

Dental sees <u>less than 25%</u> of the overall patient population.

'How do we provide oral health care to the rest of our patients?''Dr. Colleen Anderson, Dentist at BHCHP



Medical and Dental Integration

Multidisciplinary Integration Team

Goal: Increase access to oral health care for primary care patients and family teams

- Oral exams
- Oral health education
- Identify acute conditions for immediate referral
- Connect patients with dental providers



Initial Integration Steps Changes to EMR medical notes

Health Maintenance Reminders	Colorectal Cancer Screening		
HIV Status Consider HIV te Tobacco Use No tobacco use Tobacco Counseling No tobacco cou Weight Mgmt Plan No BMI or Weig Depression Screen No depression Dental exam No Dental Exam	n record VU00 C testing. Last Test: no data VU00 e sting. Last test: no data VU00 e data on record. VU00 unseling on record. VU0 ght Mgmt Plan on record. VU0	Imal MOUTH Oral Exam Guide Oral health assessment including cancer screening performed WNL Good dentition No erythema No exudates	
	mouth pain: recent/current mouth pain jaw pain jaw pain loose teeth loose teeth	teeth Erythematous pr vhen chewing Tonsils enlarged ng gums Ulceration	ingiva harynx J
 Breast Musculoskeletal Skin Neurologic Psychiatric Endocrine 	Dbservation for "ROS Mouth":		

Integration Efforts

- Oral health fairs at family team sites
- Resources for staff and patients
- Events to raise staff awareness and encourage oral exams
- Risk assessments, patient education, and care coordination within our medical clinic and family team clinics

Frameworks



Core Competencies for Interprofessional Collaborative Practice

Sponsored by the Interprofessional Education Collaborative*



Report of an Expert Panel May 2011 HISC sponsors: American Association of Colleges of Nuraing American Association of Colleges of Ostropathic Medicine American Association of Colleges of Pharmacy American Medical Colleges American Medical Colleges Association of Schools of Itable Health

Integration of Oral Health and Primary Care Practice

U.S. Department of Health and Human Services Health Resources and Services Administration February 2014



Oral Health: An Essential Component of Primary Care

White Paper



June 2015

Core Competencies for Interprofessional Collaborative Practice



Core Competencies for Interprofessional Collaborative Practice

Sponsored by the Interprofessional Education Collaborative*



Report of an Expert Panel May 2011 *IPEC sponsors: American Association of Colleges of Nursing American Association of Colleges of Discogathic Medicine American Association of Colleges of Hammacy American Dental Education Association Association of American Medical Colleges Association of Schools of Hubic Health

- Values/Ethics
- Roles/Responsibilities
- Interprofessional Communication
- Teams and Teamwork

Oral Health Core Clinical Competencies

Integration of Oral Health and Primary Care Practice

U.S. Department of Health and Human Services Health Resources and Services Administration February 2014



- Risk Assessment
- Oral Health Evaluation
- Preventive Intervention
- Communication and Education
- Interprofessional Collaborative Practice

Oral Health Delivery Framework

Oral Health: An Essential Component of Primary Care

White Paper

The Oral Health Delivery Framework

The Oral Health Delivery Framework delineates the activities for which a primary care team can take accountability to protect and promote oral health. These activities are within the scope of practice for primary care;¹⁰ and if organized efficiently, can be integrated into the office workflow of diverse practice settings. Activities are grouped into five action categories: Ask, Look, Decide, Act, and Document & Follow Up.

This section presents the Oral Health Delivery Framework, provides a sample workflow, and offers guidance on incremental approaches to implementation. For examples of how primary care practices have successfully incorporated components of the Framework, continue to the case examples on <u>pages 52–61</u>.

Figure 2: Oral Health Delivery Framework





June 2015

Smiles for Life Oral Health Curriculum



www.smilesforlifeoralhealth.org

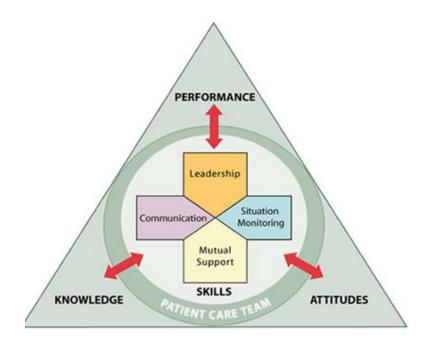
Co-op Student Job Description

Risk Assessment	Oral Exam	Patient Education
Survey Tools	Collaborate with Medical Providers	Fluoride Varnish
Outreach	Referral Resources	Schedule Appointments

Workshops

- 1. Teamwork & Communication
- 2. Risk Assessment
- 3. The Oral Exam
- 4. Acute Dental Problems
- 5. Fluoride Varnish

Workshop 1: Teamwork & Communication



Communication

Team Structure

TeamSTEPPS®: Strategies and Tools to Enhance Performance and Patient Safety. September 2015. Agency for Healthcare Research and Quality, Rockville, MD.

http://www.ahrq.gov/professionals/education/curriculum-tools/teamstepps/index.html

TeamSTEPPS® Dental Module

Health Care For Patients &	
Information Consumers	Professionals Policymakers & Data & Grants & Programs Events A A A
Home > For Professionals > Ed	Jucation & Training > Curriculum Tools > TeamSTEPPS
Clinicians & Providers	f 💙 🗠 🗢 🕂
Education & Training	TeamStepps Dental Module
 Continuing Education 	The TeamSTEPPS Dental Module consists of videos showing how dental staff who perform oral surgery and
Curriculum Tools	general dentistry can use TeamSTEPPS's teamwork, leadership, mutual support, communication, and situation monitoring skills in their practices.
 Diabetes Planned Visit Notebook 	
 Advancing Pharmacy Health Literacy Practices Through Quality Improvement 	Module Materials Just Announced: 2016 TeamSTEPPS These videos show how dental staff who perform oral surgery and general Conference in Washington, D.C.
TeamSTEPPS	dentistry can use TeamSTEPPS®'s teamwork, leadership, mutual support, communication, and situation monitoring skills in their practices.
 Staying Healthy Through Education and Prevention (STEP) 	 Dental Office: Lost Opportunity (Flash video, 4 min., 43 sec.; 18.9 MB) Dental Office: Opportunity Won (Flash video, 4 min., 21 sec.; 17.3 MB) Oral Surgery: Lost Opportunity (Flash video, 4 min., 9 sec.; 16.8 MB) Oral Surgery: Opportunity Won (Flash video, 5 min., 38 sec.; 22.5 MB)
Chronic Care Model	Download Dental Module videos for local use (Zip file, 88.5 MB). Select the
CLABSI Tools	link, then choose <i>Save</i> to save the file to your computer. This file contains these four videos in Windows Media format. They may be unzipped and played
CLABSI Tools CUSP Toolkit	without an Internet connection.
	Page last reviewed September 2015
 CUSP Toolkit Shared Decision Making 	

TeamSTEPPS® Primary Care Module

Health Care Information	For Patients & Consumers	For Professionals	For Policymakers	Research Tools & Data	Funding & Grants	Offices, Centers & Programs	News & Events	AAA
Home 📏 For Profe	ssionals 🔉 Hospit	als & Health Systems	> National Cente	er for Excellence in Prir	nary Care Rese	arch		
Clinicians & Providers		TeamSTE	PPS Primo	ary Care V	ersion		f 🗹	⊠ ⊕ <mark>+</mark>
Education & Training				,		lust Appour	red: 2016 Tes	amSTEPPS
Hospitals & Health Systems		The Primary Care version of TeamSTEPPS adapts the core concepts of the TeamSTEPPS program to reflect the environment of primary care office-based teams. The						
Hospital Resources	i	examples, discu	ssions, and exerc	cises are tailored t				
Long-term Care Re	sources	primary care en	ivironment.					
 National Center for Primary Care Research 				ent this module or to	offer feedback	c, call Richard Ricciard	i, Ph.D., N.P., a	at 301-427-
 AHRQ Centers for Care Practice-Base and Learning 	· · ·	1578 or send an Email to richard.ricciardi@ahrq.hhs.gov. Materials						
 EvidenceNOW: A Heart Health in F Primary Care Tra 	Primary Care		2015. These files are	o refinements while it offered as a courtesy				
 TeamSTEPPS Print Version 		Participant H		a .				
► MONAHRO				🔁 - 243.5 KB] , Word ing (PDF Version [🏝		153.15 KB])		
 System Design Res 	ources			ing for Primary Care O		ams (PDF Version [- 43.66 KB]))
Prevention & Chronic C		Thinking ab		re Office-Based Team	(PDF Version	[🏝 - 48.42 KB])		
Quality & Patient Safet	у	When and V	· · · · · · · · · · · · · · · · · · ·	e (PDF Version [🖫 -	80.22 KB])			
		Mutual Sup		Version [🔁 - 33.85 k				
		Creating A I	Handoff Checklist (P	DF Version [🔁 - 35.6	7 KB])			
		Slide Present	ations					

Workshop 2:

Risk Assessment

Smiles for Life Course 6: Caries Risk Assessment

- Discuss the etiology of early childhood caries (ECC).
- Assess a child's risk of developing ECC.
- Recognize the various stages of ECC.



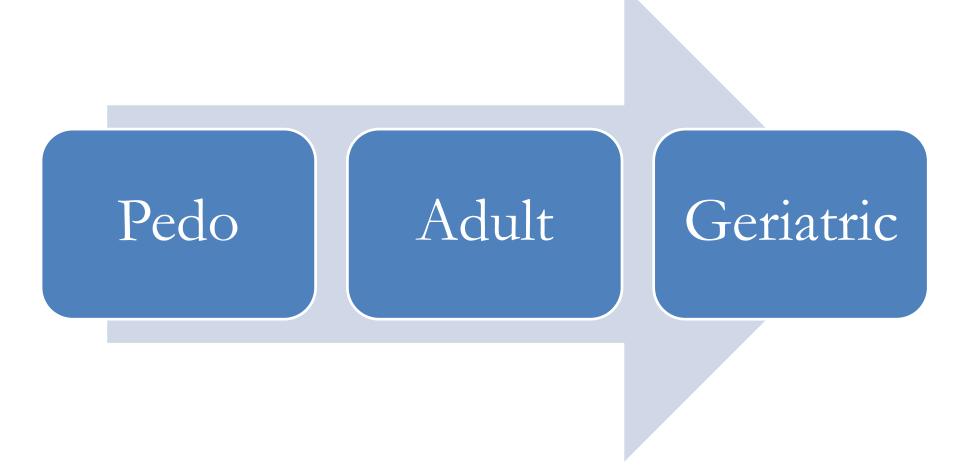
Workshop 2: Risk Assessment

Smiles for Life Course 3: Adult Oral Health & Disease

- Recognize adult caries and periodontal disease and refer patients for appropriate treatment.
- Learn how aging and chronic medical conditions affect oral health.

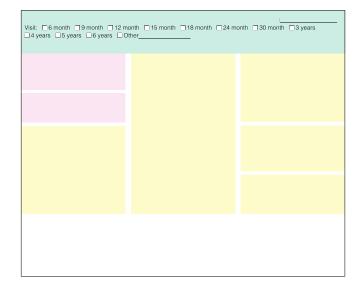


Case-based learning



Risk Assessment Tools

	ient Name:		-		
Birth Date:			Date:		
Age	n	Initials:			
		Low Risk	Moderate Risk	High Risk	
		Check o		at apply	
I.	Fluoride Exposure (through drinking water, supplements, professional applications, toothpaste)	🗆 Yes	🗆 No		
II.	Sugary Foods or Drinks (including juice, carbonated or non-carbonated soft drinks, energy drinks, medicinal syrups)	Primarily at mealtimes		Frequent or prolonged between meal exposures/day	
UL.	Caries Experience of Mother, Caregiver and/or other Siblings (for patients ages 6–14)	No carious lesions in last 24 months	Carious lesions in last 7-23 months	Carious lesions in last 6 months	
IV.	Dental Home: established patient of record, receiving regular dental care in a dental office	🗆 Yes	□ No		
	General Health Conditions	Check or Circle the conditions that apply			
L	Special Health Care Needs (developmental, physical, medi- cal or mental disabilities that prevent or limit performance of adequate oral health care by themselves or caregivers)	□No	Yes (over age 14)	Yes (ages 6-14)	
II.	Chemo/Radiation Therapy	□ No		🗆 Yes	
Ш.	Eating Disorders	□ No	C) Yes		
IV.	Medications that Reduce Salivary Flow	□ No	Ves 🛛		
V.	Drug/Alcohol Abuse	□ No	🛛 Yes		
	Clinical Conditions	Check o	r Circle the conditions th	at apply	
L	Cavitated or Non-Cavitated (incipient) Carious Lesions or Restorations (visually or radiographically evident)	No new carious lesions or restorations in last 36 months	1 or 2 new carious lesions or restorations in last 36 months	3 or more carious lesions or restoration in last 36 months	
II.	Teeth Missing Due to Caries in past 36 months	□ No		🗆 Yes	
111.	Visible Plaque	□ No	🗆 Yes		
IV.	Unusual Tooth Morphology that compromises oral hygiene	□ No	🗆 Yes		
V.	Interproximal Restorations - 1 or more	□ No	🗆 Yes		
VI.	Exposed Root Surfaces Present	□ No	🗆 Yes		
VII.	Restorations with Overhangs and/or Open Margins; Open Contacts with Food Impaction	□ No	🗆 Yes		
VIII.		□ No	🗆 Yes		
IX.	Severe Dry Mouth (Xerostomia)	□ No		🗆 Yes	
	erall assessment of dental caries risk:	□ Low	Moderate	🗆 High	



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American Academy of Pediatrics

Workshop 3: The Oral Exam

Smiles for Life Course 7: The Oral Examination

- Review basic oral anatomy and characteristics of healthy teeth.
- Use proper equipment to perform an oral exam.
- Perform a consistent, thorough oral, face, and neck examination of children and adults.
- Understand some of the differences between normal and abnormal findings.

Peer-to-Peer Learning





the HOMELESS PROGRAM









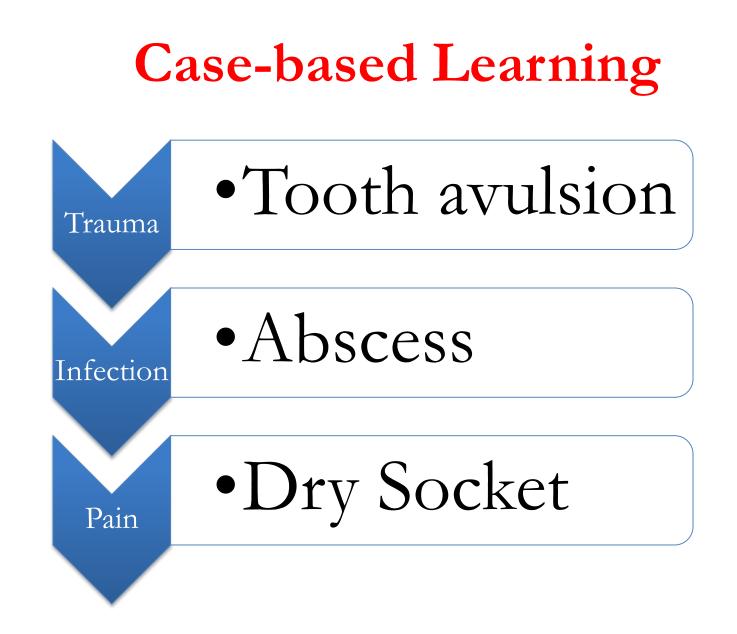
Workshop 4: Acute Dental Problems

Smiles for Life Course 4: Acute Dental Problems

- Review common acute dental problems.
- Diagnose, initially manage, and appropriately refer:

- Oral pain, oral infections, dental trauma





Workshop 5: Fluoride Varnish & Counseling

Smiles for Life Course 6: Caries Risk Assessment, Fluoride Varnish & Counseling

- Discuss the effects, sources, benefits, and safe use of fluoride.
- Describe the benefits and indications for fluoride varnish.
- Demonstrate the application of fluoride varnish.

Peer-to-Peer Learning





the HOMELESS PROGRAM









Evaluation Methods

- TeamSTEPPS[®] Teamwork Attitudes Questionnaire
- Oral Health Survey
- Workshop Evaluation
- BHCHP Outcome Data
- Student Reflections

Knowledge - How would you rate the extent of your professional knowledge about the following oral health topics? (1=little to no knowledge, 2= some knowledge, 3= extensive knowledge)

Question	Little to No Knowledge Percentage (Frequency)	Some Knowledge Percentage (Frequency)	Extensive Knowledge Percentage (Frequency)	Mean (STD)
Impact of oral health on nutrition. Pre-Assessment Post-Assessment	60.0% (3) 0% (0)	20.0% (1) 20.0% (1)	20.0% (1) 80.0% (4)	1.6 (0.89) 2.80 (0.45)
Caries (tooth decay) Pre-Assessment Post-Assessment Oral/dental trauma from injuries Pre-Assessment Post-Assessment	0% (0) 0% (0) 40.0% (2) 0% (0)	100% (5) 40.0% (2) 60.0% (3) 40.0% (2)	0% (0) 60.0% (3) 0% (0) 60.0% (3)	2.00 (0.00) 2.60 (0.55) 1.60 (0.55) 2.60 (0.55)
Relationship between oral and systemic health. Pre-Assessment Post-Assessment	60.0% (3) 0% (0)	40.0% (2) 60.0% (3)	0% (0) 40.0% (2)	1.40 (0.55) 2.40 (0.55)

Attitudes- To what extent do you agree or disagree with the following statements about integrating oral health and primary care practice? (Likert scale: 1-Strongly disagree; 5-Strongly agree)

Question	Strongly disagree (Frequency)	Disagree (Frequency)	Neither Agree or Disagree (Frequency)	Agree (Frequency)	Strongly Agree (Frequency)	Mean (STD)
Primary care clinicians should incorporate oral health clinical competencies in patient care. Pre-Assessment Post-Assessment	0% (0) 0% (0)	0% (0) 0% (0)	0% (0) 0% (0)	40.0%(2) 0% (0)	60.0%(3) 100% (5)	4.6 (0.55) 5.0 (0.55)
Health care systems should engage and educate consumers about oral health in primary care as an expected standard of interprofessional practice. Pre-Assessment Post-Assessment	0% (0) 0% (0)	0% (0) 0% (0)	0% (0) 0% (0)	60.0%(3) 20.0% (1)	40.0%(2) 80.0%(4)	4.4 (0.55) 4.8 (0.45)
Accreditation and certification bodies should integrate oral health clinical competencies into primary care practitioner standards. Pre-Assessment Post-Assessment	0% (0) 0% (0)	20.0% (1) 0% (0)	0% (0) 0%(0)	60.0%(3) 40.0% (2)	20.0%(1) 60.0%(3)	3.8 (1.10) 4.6 (0.55)

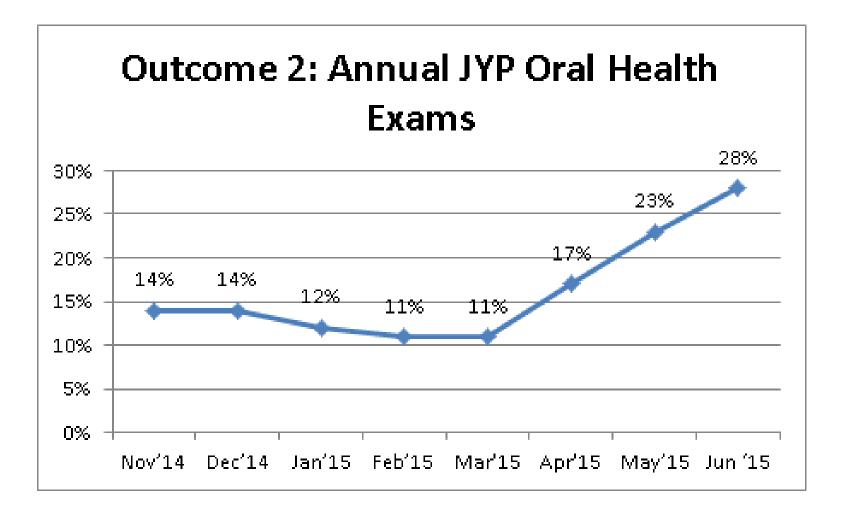
Skills - How well do you think your education <u>and</u> practice have prepared you in the following oral health clinical skills? (1=not at all prepared, 2= somewhat prepared, 3= very prepared)

Question	Not at all prepared (Frequency)	Somewhat prepared (Frequency)	Very prepared (Frequency)	Mean (STD)
Provide targeted patient education about the importance of oral health and how to maintain good oral health, which considers oral health literacy, nutrition, and patient's perceived oral health barriers. Pre-Assessment Post-Assessment	40.0% (2) 0% (0)	40.0% (2) 40.0% (2)	20.0% (1) 60.0% (3)	1.80 (0.84) 2.60 (0.55)
Identify patient-specific, <u>oral</u> conditions and diseases that impact overall health. Pre-Assessment Post-Assessment	40.0% (2) 0% (0)	60.0% (3) 40.0% (2)	0% (0) 60.0% (3)	1.60 (0.55) 2.60 (0.55)
Provide appropriate referrals to dental professionals. Pre-Assessment Post-Assessment	40.0% (2) 0% (0)	60.0% (3) 40.0% (2)	0% (0) 60.0% (3)	1.60 (0.55) 2.60 (0.55)
Relationship between oral and systemic health. Pre-Assessment Post-Assessment	60.0% (3) 0% (0)	40.0% (2) 60.0% (3)	0% (0) 40.0% (2)	1.40 (0.55) 2.40 (0.55)

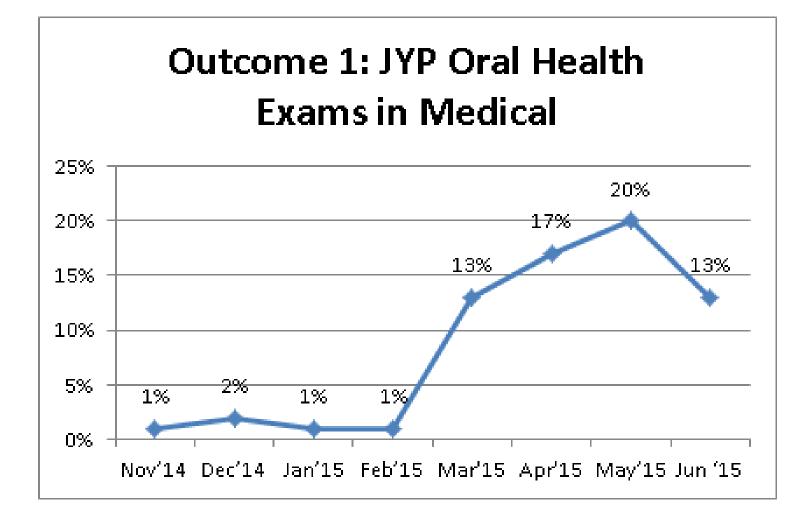
BHCHP Outcome Data



Outcomes



Outcomes



Student Exemplars

• "This setting gave me the opportunity to develop interprofessional skills such as collaborating with other health professionals, learning the roles and responsibilities of other team members, and how to effectively communicate with other disciplines. Using these skills, I helped my patients access dental care and provided education on the oral-systemic connection."

- Health Sciences Student, c/o '16

 "Through my interactions with homeless families and individuals, I have seen the reality of unmet oral health needs and the difference I can make by advocating for these patients. My co-op experience gave me insight into the role of oral health in primary care and clarified my professional goals of becoming a leader in community health and accomplishing better care for socio-economically challenged areas." – Health Sciences Student, c/o '16



- Limited resources
- Skill gap
- Competing priorities
- Referrals



Conclusion

• Safety net settings should partner with academic institutions to incorporate students as change agents in your environment to meet the needs of vulnerable and underserved populations.



Acknowledgements

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- Jacki Diani, MEd, Senior Coop Officer, Northeastern University



The DentaQuest Foundation is committed to optimal oral health for all Americans through its support of prevention and access to affordable care, and through its partnerships with funders, policymakers and community leaders. For more information, please visit <u>dentaquestfoundation.org</u>

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Thank you



QUESTIONS ?

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