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12-Month evaluation of an EHR supported staff role change for provision of tobacco cessation care in 8 primary care safety-net clinics

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Disclosures

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Context & Considerations:

- ▶ **Cleveland smoking rates are much higher than Cuyhoga County (19% vs. 35%). Smoking is strongly associated with lower income and educational attainment**
- ▶ **For this Collaboration, Case Western Reserve University Researchers partnered with MetroHealth System, which is the large safety-net provider for the county**

This project:

- ▶ **Used a Whole system & team approach that**
 - could be replicated in other systems, regions and states;
 - was sustainable and not dependent on the research project testing the implementation;
 - fit the needs of the organization and the patient population
- ▶ **Evidence Based Intervention Strategies**
 - Quitline
 - eReferral
 - Ask-Advise-Connect



This study aimed to:

Improve the delivery of smoking cessation brief advice and assistance to socially and economically disadvantaged patients using an Ask-Advise-Connect approach that is embedded in practice.

Study Design

- ▶ Sites: 8 community-based primary care clinics
- ▶ Design: Stepped wedge roll out of intervention
- ▶ Time frame: data collection 3 months pre and 12 months post implementation
- ▶ Key outcomes:
 - ▶ Process variables: tobacco assessment and assistance
 - ▶ Contact rate by the quitline
 - ▶ # counseling sessions by the quitline

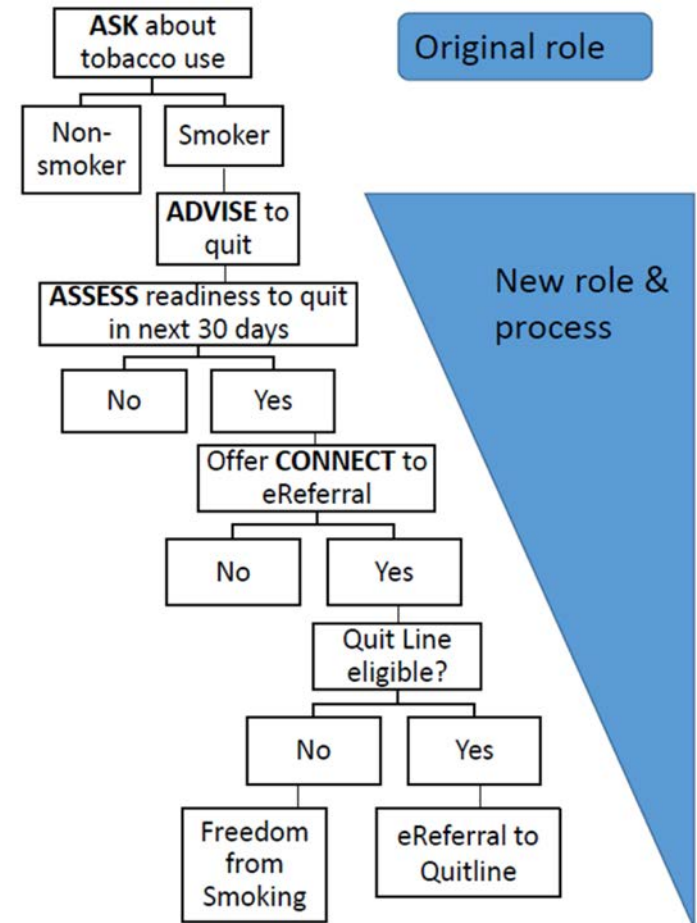
Implementation

- ▶ Training – 20 minute presentation & 20 minute practice with new EHR fields and functionality.
- ▶ Tip sheet
- ▶ Audit/Feedback-every 2 mo.

2. Changes to EMR

The screenshot displays two overlapping windows from an EMR system. The top window is titled "Connect to Quit - To Quit" and contains a form with a question: "Would you like us to connect you to tools and programs that can help you quit?". Below the question are "Yes" and "No" buttons. The bottom window is a yellow advisory titled "Important (1 Advisory)" with the text "Patient may be eligible for the Quitline" and "Add to unsigned orders: Tobacco Quitline Request (Last done by Tobacco Quit on 9/23/2016 at 2:01 PM)". It has "Accept" and "Cancel" buttons. Red boxes highlight the question text in the top window and the "Accept" button in the bottom window.

3. Role and Process changes



Demographic table pre vs post time periods

		<i>Overall</i> 211,704 (100.0%)	<i>Pre-AAC</i> <i>Implementation</i> 72,320 (34.2%)	<i>Post-AAC</i> <i>Implementation</i> 139,384 (65.8%)
<i>Description</i>	<i>Category</i>	<i>Total</i>	<i>N (%)</i>	<i>N (%)</i>
Gender	Male	64,307 (30.4%)	22,127 (30.6%)	42,180 (30.3%)
	Female	147,396 (69.6%)	50,192 (69.4%)	97,204 (69.7%)
Age in years	18-34	52,717 (24.9%)	18,010 (24.9%)	34,707 (24.9%)
	35-64	121,416 (57.4%)	41,961 (58.0%)	79,455 (57.0%)
	65+	37,571 (17.7%)	12,349 (17.1%)	25,222 (18.1%)
Race	Caucasian	94,749 (49.9%)	31,478 (48.6%)	63,271 (50.5%)
	African American	88,390 (46.5%)	31,118 (48.0%)	57,272 (45.7%)
	Other	6,912 (3.6%)	2,221 (3.4%)	4,691 (3.7%)
Hispanic	Non-Hispanic	180,993 (87.7%)	61,742 (87.6%)	119,251 (87.8%)
	Hispanic	25,347 (12.3%)	8,716 (12.4%)	16,631 (12.2%)
Primary Insurance	Commercial	61,551 (29.9%)	20,533 (29.5%)	41,018 (30.1%)
	Medicaid	82,735 (40.1%)	28,757 (41.3%)	53,978 (39.6%)
	Medicare	49,285 (23.9%)	16,560 (23.8%)	32,725 (24.0%)
	Self-Pay	12,308 (6.0%)	3,745 (5.4%)	8,563 (6.3%)
	Other	249 (0.1%)	77 (0.1%)	172 (0.1%)
Smoking Status	Current Smoker	45,683 (26.1%)	15,941 (26.5%)	29,742 (25.9%)
	Former Smoker	48,701 (27.8%)	16,494 (27.5%)	32,207 (28.0%)
	Never Smoked	80,518 (46.0%)	27,598 (45.9%)	52,920 (46.0%)
	Not Assessed	109 (0.1%)	43 (0.1%)	66 (0.1%)

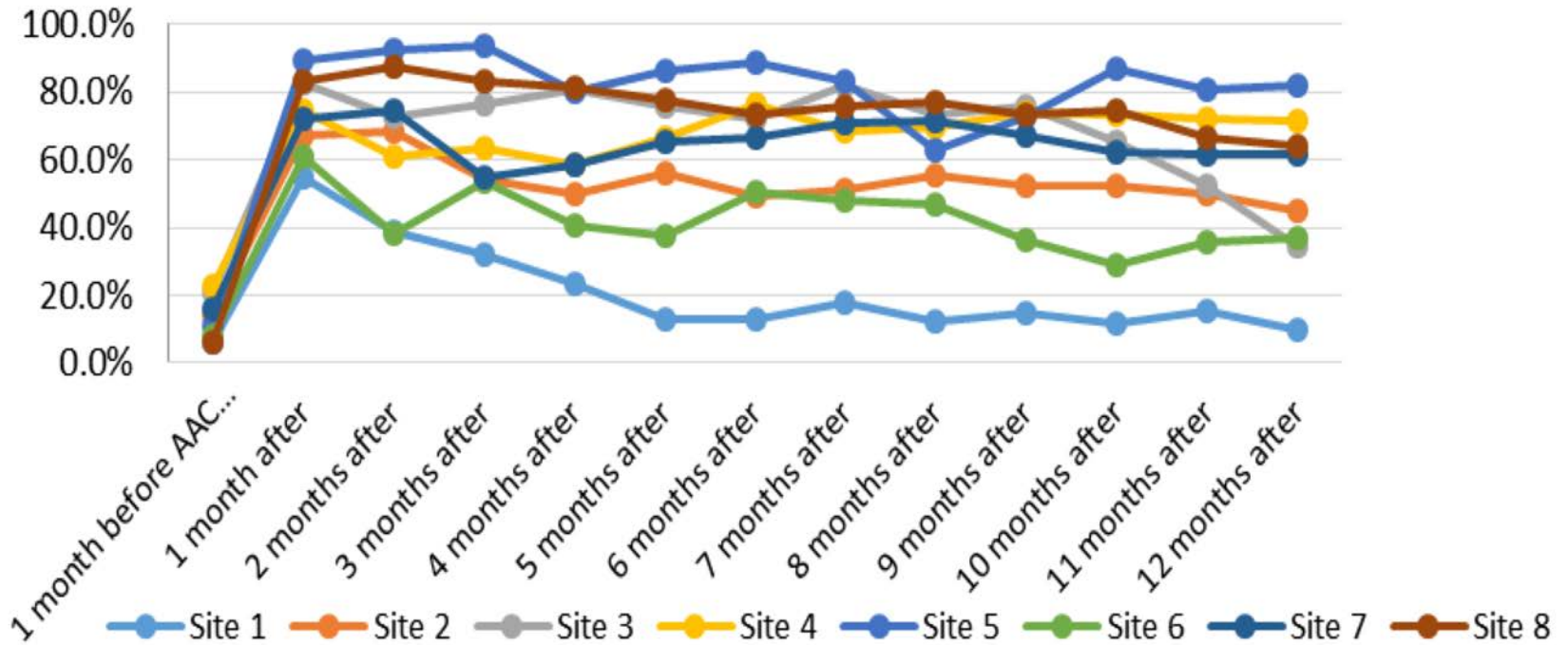
eReferral study Ask Advise Connect Findings

Indicator	Time Points								
	1-3 Months Before AAC			1 Month After AAC			3 Months After AAC		
	N	%	OR (95% CI)	N	%	OR (95% CI)	N	%	OR (95% CI)
% Ask	12,587	49%	----	4,068	69%	2.23 (2.1, 2.5)	4,331	70%	2.49 (2.31, 2.68)
% Advised	2,116	16%	----	997	88%	38.2 (30.6, 47.7)	1,062	85%	29.64 (24.17, 36.34)
% Assess Readiness	2,116	24%	----	997	87%	21.9 (17.7, 27.0)	1,062	82%	14.33 (11.91, 17.24)
% Accepted Referral	170	2%	----	380	53%	62.5 (19.6, 199.3)	298	35%	29.84 (9.30, 95.79)

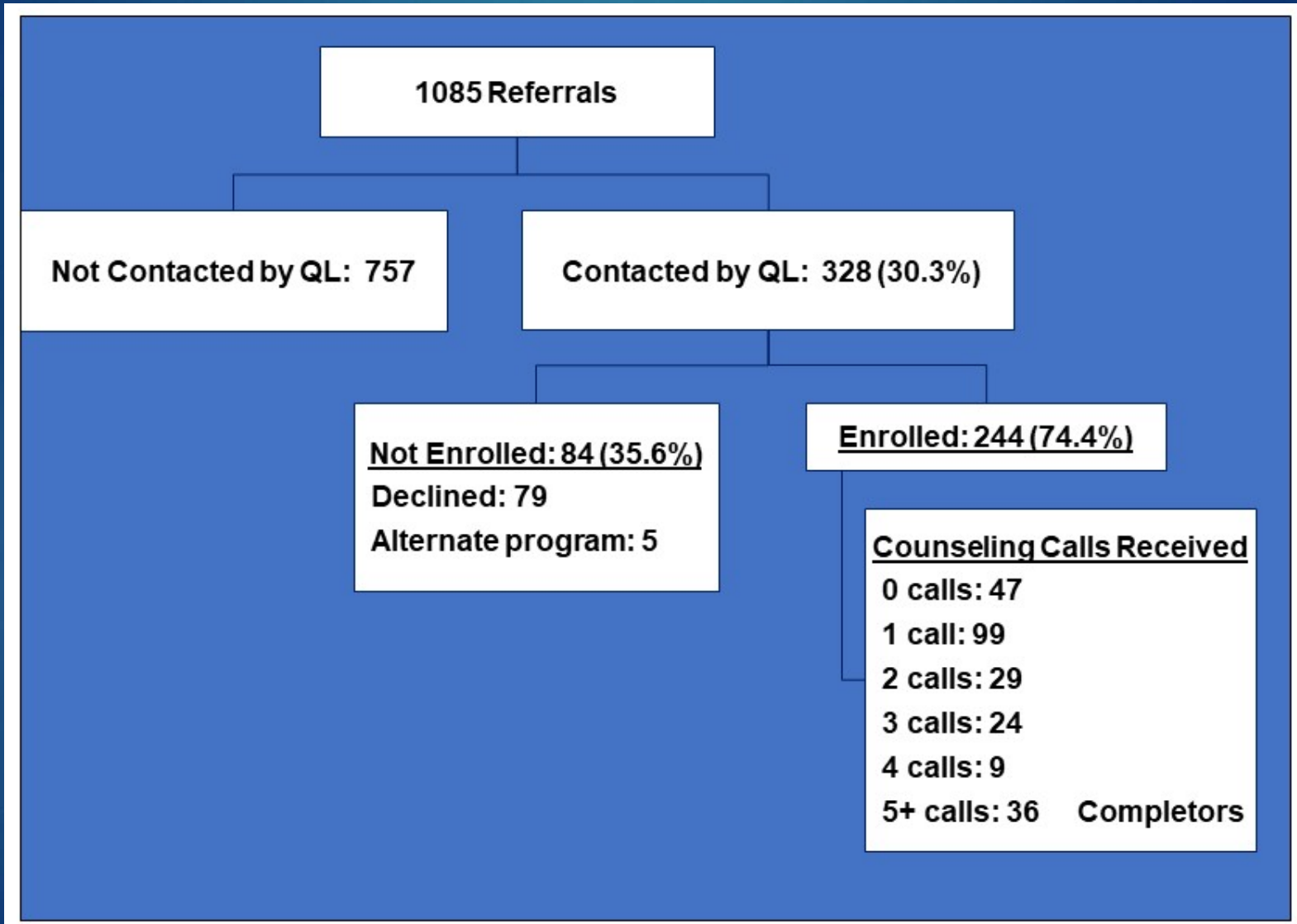
Indicator	Time Points								
	1-3 Months Before AAC			6 Months After AAC			12 Months After AAC		
	N	%	OR (95% CI)	N	%	OR (95% CI)	N	%	OR (95% CI)
% Ask	12,587	49%	----	3957	65%	1.97 (1.8, 2.1)	11,991	55.7%	3.47 (3.32, 3.62)
% Advised	2,116	16%	----	908	92%	61.5 (47.1, 80.2)	2,117	88.7%	9.64 (8.27, 11.24)
% Assess Readiness	2,116	24%	----	908	76%	10.3 (8.5, 12.3)	2,117	55.0%	6.52 (5.70, 7.45)
% Accepted Referral	170	2%	----	235	23%	17.0 (5.2, 55.4)	301	30.9%	81.82 (11.29, 592.89)

Ask Advise Connect Findings

Figure 3. % Assess readiness



eReferral study



Summary points

- ▶ This systems-based strategy resulted in substantial and sustained increase in:
 - ▶ documentation of smoking status and advice
 - ▶ connection to assistance for tobacco cessation
- ▶ Contact rate by quitline and enrollment is modest.
 - ▶ There is much to learn about individuals who say they are ready and want help, but are not able to be contacted.
 - ▶ Identifying effective and acceptable tobacco cessation support options for low income adults is a high priority.
- ▶ Systems change research requires substantial commitment to collaboration system quality improvement on the part of all team members

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