

## Executive Summary

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This report provides an evaluation of the first six months of Trillium Community Health Plan's investment in tobacco prevention and cessation programs: The PAX Good Behavior Game, Provider Training for Tobacco Cessation and the Tobacco Cessation Incentive Program. This report is limited in that only six months of data are currently available for evaluation at this time. No additional funds are being requested at this time.

### ***PAX Good Behavior Game***

Data on the PAX Good Behavior Game was obtained through training attendance records, state reports on enrollment in free/reduced lunch and state estimates of average class size in Lane County. Collection of classroom data on implementation is on-going and is not available at this time.

- 85 classroom teachers have received training in the PAX Good Behavior Game.
- Approximately 730 low-income elementary school students are now in classrooms with a trained teacher. This represents an increase from 9% to 21% of children in eligible low-income schools with a trained teacher.
- Total expenditure to-date: \$34,100.

### ***Provider Training for Tobacco Cessation***

Evaluation data for the provider trainings for tobacco cessation come from pre-test and post-test surveys of training participants as well as attendance records. Data was also obtained from Tobacco Treatment Specialists' on the number of clients served and number abstaining from tobacco use.

- 36 behavioral health and medical care providers were trained as Tobacco Treatment Specialists.
- 280 behavioral health and medical care providers, including prenatal care providers, were trained on medications and counseling for treating tobacco dependence.
  - Statistically significant improvement in use of 3 out of 5 As (Advise, Assist, and Arrange) at 3 months post training.
- There has been a 152% increase in the use of fax referrals to the Oregon Quit Line from Lane County providers for the period of July – December 2013 compared to the same time period in 2012.
- Total expenditure to-date: \$29,688

### ***Tobacco Cessation Incentive Program***

The data for the Tobacco Cessation Incentive Program was collected by clinics and compiled by Trillium's perinatal program staff. Additional data concerning pregnant women and accessing tobacco cessation services was provided by Trillium's analytics staff. Pre and post training surveys were administered to prenatal care providers and in-person and telephone interviews were also conducted with some clinical staff.

- Four out of five prenatal care providers are participating in the program
- From August 5, 2013-December 31, 2013 26% of pregnant members who used tobacco were participating in the program (37 participants/144 pregnant smokers).
- Between August 5, 2013 and December 31, 2013, 4 participants (out of 37) successfully abstained for at least one week during pregnancy.
- Total expenditure as of February 14, 2014: \$3,975.

## PAX Good Behavior Game

The PAX Good Behavior Game is an evidence-based classroom management tool that has over 20 years of research supporting its effectiveness in preventing smoking initiation, drug and alcohol abuse, and social/psychological disorders in young people. Longitudinal studies have demonstrated up to 50% reduction in smoking initiation by age 15 for students who 'played' the game during the first grade. (*Kellam, S., et al. (2011) The Good Behavior Game and the Future of prevention and treatment. Addiction Science and Clinical Practice 6(1) 73-84.*).

### Findings

Table 1

Evaluation Question	Indicators	Data Sources/ Methods (How Measured / Case Definition)	Target by June 2015	Evaluation timeframe	6 month results	Total expenditure to-date
Have we increased the number of elementary schools serving low-income populations with teachers trained in GBG?	Number of elementary school teachers trained	Registration information Attendance information	100% of eligible schools have at least one teacher trained in GBG	Oct 2013- June 2014	85 teachers have been trained	Training in Fall 2013 \$20,200  Training in Spring 2014 \$13,900  Total: \$34,100
	% of eligible schools* with at least 1 teacher trained	# of schools with teachers who have attended GBG trainings/total # eligible schools			50% of eligible schools have at least one teacher trained (6/12); up from 30% prior to trainings	
	% of kids in classrooms with trained teachers	# kids in classrooms with trained teachers/# kids in eligible schools**	30% of kids in eligible schools in classroom with trained teacher		An estimated 21% of kids in eligible schools are in classrooms with a trained teacher (731/3415); compared to 9% prior to trainings (340/3415)	

\*Eligible schools are those with 75% or greater enrollment in free/reduced lunch

\*\* # kids in classrooms is an estimate based on average class size

- 85 classroom teachers and 12 counselors/administrators have been trained in use of the PAX Good Behavior Game.
- 15 counselors and administrators have been trained as PAX Leaders.
- 16 classroom teachers and/or counselors participated in booster trainings.

### Recommendations and next steps

- Support teachers and PAX leaders to ensure implementation with fidelity and utilization of PAXIS' on-line data tracking system
- Work with Dennis Embry (PAXIS director) and Lane Education Service District to garner support from Superintendents to ensure sustainability of PAX-GBG in Lane County schools
- Plan for additional training in the Fall 2014.

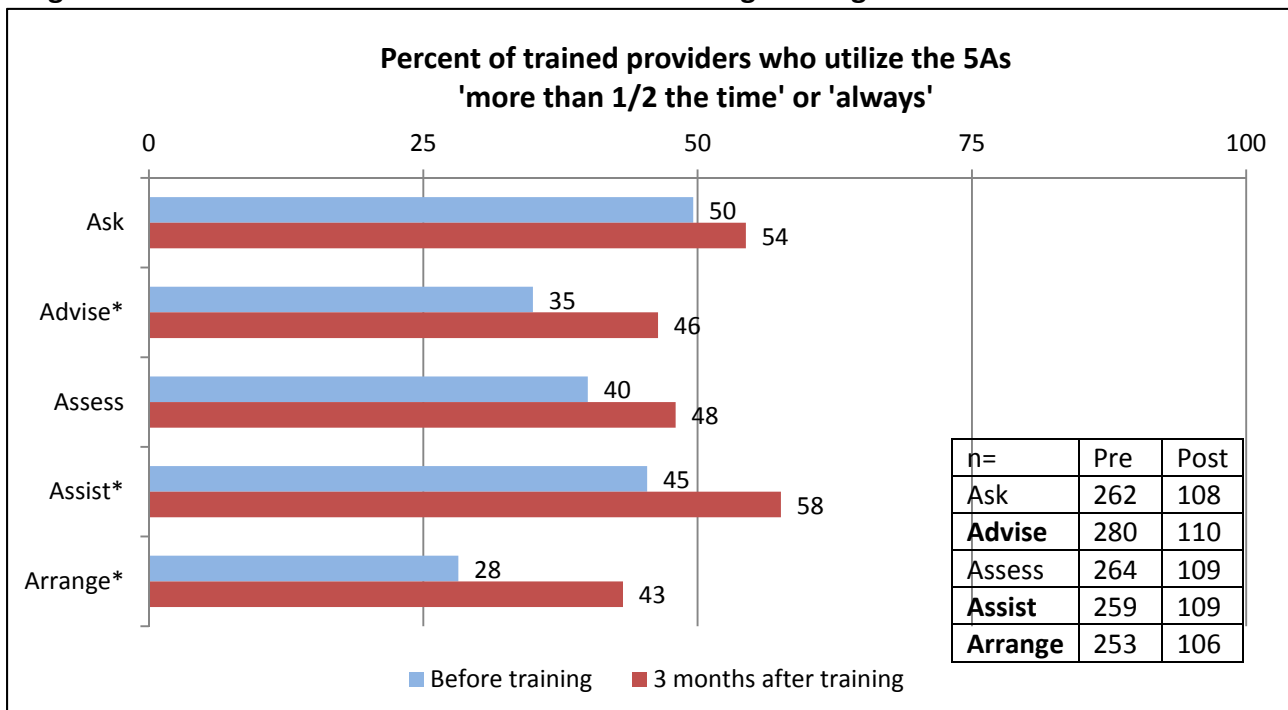
## Provider Training for Tobacco Cessation

Three provider training opportunities were offered between June 2013 and December 2013; all three emphasized use of the 5As, an evidence-based screening and brief intervention for assisting tobacco users with cessation efforts.

1. Training for Tobacco Treatment Specialists (TTS) was offered in June 2013 to 36 providers, most of whom were behavioral health specialists. This intensive four-day training helped create a cadre of specialists who could work intensively with Trillium members who needed assistance with tobacco cessation.
2. 50 staff members at 5 prenatal care clinics were given a brief introduction to use of the 5As as part of the training for the Tobacco Cessation Incentive Program in June 2013.
3. Two hour trainings on medications and counseling for the treatment of tobacco dependence were offered in November 2013 at multiple locations. Approximately 230 medical and/or behavioral health providers participated in at least one of these training opportunities.

### Findings

**Figure 1: Use of the 5As before and 3 months following training**



- Trainings increased use of the 5As by an average of 10%
  - Significant increases in Advise, Assist and Arrange
  - Consistent use of Ask and Assist suggests that tobacco users ready to quit are getting the assistance they need
  - Less frequent use of Advise, Assess, and Arrange suggests that ambivalent tobacco users may need more attention
- Between July and December 2013, 81 unique individuals were treated for tobacco dependence by trained Tobacco Treatment Specialists; 21% of those individuals had abstained for tobacco use for at least one week (17/81); data collection for 3 months abstinence is still in progress.
- Use of the fax referral service to the Oregon Quit Line has increased:
  - 19 Lane County providers used the service between July-December, 2012.
  - 48 Lane County providers used the service between July-December, 2013.
- Expenditures to-date:
  - Tobacco Treatment Specialist Training, \$21,065
  - Training on medications and counseling for the treatment of tobacco dependence, \$8,623

### **Recommendations and next steps**

- Provide additional training and technical assistance to medical/behavioral health providers to implement systems changes that will facilitate making use of the 5As a routine part of every visit.
- Increase awareness of existing resources in the community and work with providers and TTS to develop streamlined referral processes.
- Provide additional training and support to providers in moving ambivalent tobacco users towards wanting to quit.

## **Tobacco Cessation Incentive Program**

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In June 2013, in order to provide pregnant women with extra support with tobacco cessation during pregnancy, staff members at five prenatal care clinics were trained to implement a graduated incentive program to encourage women to quit during their pregnancy and to remain quit after delivery. Three of those clinics began enrolling pregnant smokers into the incentive program in August 2013, with a fourth clinic enrolling women in October 2013. Only the first four months of cessation data are reported here due to the availability of data.

### **Findings**

- Four out of five prenatal care providers are participating in the program; which serve an estimated 70% of pregnant Trillium members.
- From August 5, 2013 – December 31, 2013, 26% of pregnant members who used tobacco participated in the program (37 participants/144 pregnant tobacco users).

- Between August 5, 2013 – December 31, 2013, 11% of participants successfully abstained for at least one week during pregnancy; average length of abstinence was 21 days (4/37 participants).
- From August 5, 2013 – December 31, 2013, 17% of pregnant members who used tobacco accessed any type of cessation service (24/144).
- From August 5, 2013 – December 31, 2013, 6% of pregnant members who used tobacco accessed cessation counseling services (9/144).
- Clinic staff have reported a number of barriers to implementation:
  - Enrollment process is time consuming.
  - Staff do not always have adequate resources to provide motivation and follow-up to patients
  - There is not a clear referral process to cessation counselors
- Expenditures to date: \$3,975

### **Recommendations and next steps**

- Provide additional training and technical assistance to prenatal care providers to implement systems changes that will facilitate making use of the 5As a routine part of every visit.
- Modify incentives to incentivize enrollment and utilization of tobacco cessation services in addition to incentivizing abstinence.
- Centralize the enrollment, follow-up and tracking to improve consistency in enrollment and data collection and take pressure off busy clinic staff.

**APPENDIX A: Evaluation Data**

**Tobacco Cessation**

Evaluation Question	Indicators	Data Sources/ Methods (How Measured / Case Definition)	Target	Evaluation Timeframe	Results		
Has use of the 5As increased among clinic staff and practitioners?	% of clinic staff and practitioners who attend 5As training that report using the 5As “More than half the time” or “Always” during all office visits.	Collected via survey prior to training, at 3 months, 6 months and one year afterwards.  Average % of ‘more than ½ the time’ and ‘always’ responses to 5As questions (excluding NRT replacement questions)	10% increase in clinic staff and practitioners who received training report using the 5As “more than half the time” or “Always”	Prenatal:		Pre	Post
				Baseline June 2013	Ask	44%	50%
				Follow-up November 2013	Advise	32%	35%
				Follow-up November 2013	Assess	24%	31%
				Follow-up November 2013	Assist	34%	46%
				Follow-up November 2013	Arrange	26%	39%
				Other providers:		Pre	Post
				Baseline November 2013	Ask	51%	56%
				Baseline November 2013	Advise	36%	50%
				Baseline November 2013	Assess	44%	53%
				Baseline November 2013	Assist	48%	61%
				Baseline November 2013	Arrange	29%	44%
				Follow up: March 2013	All 5As	15%	24%
				Follow up: March 2013			
Has use of fax referrals to the Oregon Quit Line increased?	% of prenatal care providers sending fax referrals to the Quitline	# of fax referrals reported by Quitline of Lane County prenatal care providers serving Trillium members/total number of prenatal care providers in Lane County	80% of OB/GYN providers using the fax referral system	July-Dec. 2013	80% (4/5) prenatal clinics used fax referral between July-Dec 2013; compared to 20% (1/5) for the same time period in 2012.		
Has use of the Oregon Quit Line by pregnant Trillium members increased?	% of tobacco using Trillium consumers who use the Quitline	From Quitline reports: # of Quitline users who report Trillium Medicaid as their insurance to the Tobacco Quitline / Estimated Total # of Trillium adult tobacco users (estimated adult members x estimated tobacco use prevalence)	20% increase above baseline (2012 data)		July-Dec. 2012: 0.48% (43/9,000)  July-Dec. 2013: 0.36% (43/12,000)		

		# of pregnant women who are Trillium consumers who use Quitline / Total number of Trillium consumers who are pregnant and who smoke (reported in claims data or latest vital statistics estimate)			~0.69% (1/144) have used the quit line
Has the availability of cessation services increased?	# clinic staff/practitioners who attend tobacco treatment specialist training(s) # of members assigned to providers who received training	Training registration records	20 social service/ medical practitioners trained in intensive tobacco cessation counseling by August 2013  # of members assigned to those providers	June 2013	36 social service/medical practitioners trained as tobacco treatment specialists  Not available
	% of practitioners who attend 5As training	# attended/# received advertising		November 2013	20% (230/~1100)
	# tobacco treatment specialists offering intensive counseling  # of members utilizing counseling	Tobacco treatment reports from tobacco treatment specialists who received training.  # claims using cessation codes from providers		July-Dec. 2013	39% (14/36) of participants in the TTS training have submitted reports. 81 unique individuals have been served, 21% have successfully abstained from tobacco use (17/81) Claims data not available at this time

Has use of cessation services increased?	% of pregnant Trillium consumers who are using tobacco who access cessation services	Claims data indicating use of tobacco cessation CPT/NDC codes for screening, counseling, classes, and acupuncture and cessation prescriptions.  % of pregnant women enrolled in incentives program/# of pregnant members	80% of pregnant consumers who are using tobacco access cessation services		6% (9 /144) access cessation counseling services (Aug-Dec)  17% (24/144) accessed any type of cessation service (Aug-Dec)  26% (37/144) pregnant smokers enrolled in incentive program (Aug-Dec)
	% of providers who received 5As training that provide supportive cessation services “always” or “more than half the time”	“Practitioner Attitude and Knowledge” survey question: <i>“When advising a patient to quit during the last 3 months, how often did you provide them with resources (such as information on the Oregon Quit Line, or cessation classes) to help them quit?”</i>	10% increase in “more than half the time” or “always” responses	Prenatal: Baseline June 2013 Follow-up November 2013	Baseline: 34% (17/50) Follow-up: 46% (12/26)
				Other providers: Baseline November 2013 Follow up: March 2013	Baseline: 48% (110/230) Follow-up: 63% (29/46)
Are fewer women smoking at any time during their pregnancy?	% of all women on Oregon Health Plan in Lane County who smoke at any time during their pregnancy.	Use Oregon Birth Certificates Data. % of women on Oregon Health Plan in Lane County who smoked during pregnancy as recorded in birth certificates data (Note: only available on annual basis)	10% decrease from baseline (2012)	Aug. 2013-Aug. 2014	To be reported in Sept. 2014



Are women enrolled in the incentive program successfully quitting?	% of pregnant women participating in the incentive program who quit using tobacco after they found out they were pregnant and remain quit until 6 weeks postpartum.	Current smokers are defined as any pregnant woman who indicates to her physician that "I smoke now" or "I smoke regularly" and whose smoking status is confirmed by urine test. [Reported by obstetrician on TCIP Fax form as "D" or "E" and sent to Trillium]	30% or more of participants in the cessation incentives program remain quit at 6 weeks postpartum	Aug 2013-Jan. 2014	11% (4/37) women have successfully abstained for at least 1 week during pregnancy.  As of February 14, 2014, of the 15 women enrolled in the program who have delivered their babies, one received at least one voucher during her pregnancy. (7%)
Are pregnancy outcomes improving?	% of full term births with normal birth weight born to Trillium consumers	Vital Records data births to Trillium consumers at 37 weeks or more with a birth weight of 5 pounds 8 ounces or greater.		Aug. 2013-Aug. 2014	To be reported in Sept. 2014
		Claims data for birth weight of child.		Aug. 2013-Aug. 2014	
What cost savings, if any, are realized as a result of the program?	% of births and cost per episode of NICU admissions	Count and cost as recorded in claims data		Aug. 2013-Aug. 2014	To be reported in Sept. 2014
	Average length of stay for newborns;	Length of stay as recorded in claims data.			
	Cost per day for newborns.	Cost per day as recorded in claims data.			

### The PAX Good Behavior Game

Evaluation Question	Indicators	Data Sources/ Methods (How Measured / Case Definition)	Target	Evaluation timeframe	Results
Have we increased the number of elementary schools serving low-income populations with teachers trained in GBG?	Number of elementary school teachers trained % of schools with 75% F/R lunch that have at least 1 teacher trained	# of schools with teachers who have attended GBG trainings/total # schools with 75% F/R lunch enrollment	100% of eligible schools have at least one teacher trained in GBG	Nov 2013- June 2014	85 teachers have been newly trained and 16 teachers have received booster training  50% of schools with 75% or more enrollment in F/R lunch have at least one teacher trained
	% of kids in classrooms with trained teachers	# kids in classroom/# in grade at schools with 75% F/R	30% of kids in eligible schools in classroom with trained teacher		
Is the GBG being implemented with fidelity in classrooms?	Average % of classrooms that score at least 6 out of 12 Kernels above 1	Classroom observation data using PAXIS' Implementation Survey collected at baseline, 1-3 months after training and 4-6 months after training	Greater than 50% of teachers trained achieve 50% or greater on kernels and PAX scores	Nov 2013- June 2014	Data collection in process
	Average % of classrooms that score at least 2 out of 3 PAX above one	Classroom observation data using PAXIS' Implementation Survey collected at baseline, 1-3 months after training and 4-6 months after training			
Are classroom disruptions decreasing?	Reduction in average # of total spleems*/classroom	Spleem observation forms; data collected at baseline, 1-3 months after training and 4-6 months after training	30% reduction in total spleems from baseline	Nov 2013- June 2014	Data collection in process
	Reduction in average # of estimated number of disruptions/child/hour	Spleem observation forms; data collected at baseline, 1-3 months after training and 4-6 months after training	30% reduction in disruptions/child/hour from baseline		

**Retailer Reminder/Reward:** This program has not yet been implemented. Implementation is expected in Summer 2014.

**Anti-tobacco media campaign:** This program has not yet been implemented. Implementation is expected in Fall 2014

\*A spleem is a made-up word used in the PAX Good Behavior Game to characterize disruptive behavior in the classroom

**APPENDIX B: Summary of Expenditures**

Program	Expenditures to-date	Remaining in approved budget
PAX Good Behavior Game	\$34,100	\$24,000
Training for Tobacco Treatment Specialists	\$21,065	\$15,000
Provider Training for Tobacco Cessation	\$8,623	\$6,877
Tobacco Cessation Incentive Program	\$3,975	\$226,025