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Issue 4 (Revised)

Research Brief

Keystone STARS is Pennsylvania's quality improvement system in which early learning programs and providers are encouraged and supported to meet specific, evidence-based quality performance standards. These standards are designed to enrich child development and increase outcomes by improving the quality of early learning childcare programs. The standards of Keystone STARS improve quality by targeting four key content areas:

- Staff qualifications and professional development
- The learning environment
- Partnerships with families and communities
- Leadership and management.

Participants in STARS can earn a quality rating score from a STAR 1 to a STAR 4, where higher STAR levels indicate better quality of childcare at the facility.

STARS Technical Assistance (TA) is an intensive, one-on-one service provided to early learning providers intended to help the facility meet the specific Keystone STARS standards and move up STAR levels. It is administered through the six Regional Keys in partnership with consultants who have the knowledge, skills, and experience necessary to guide Keystone STARS programs in the content areas. In 2009-2010, Pennsylvania

## TA and Quality Improvement

Administrative records were analyzed to investigate the relationship between STARS TA and quality improvement. STAR movement of childcare providers receiving TA were compared to movement among providers that did not receive this support. STAR level movement was measured by comparing the STAR level of the provider at the beginning of FY 2009-2010 (or at time of request

fully implemented the Keystone STARS Technical Assistance Quality Assurance and Accountability System to ensure consistency and quality in TA across the state.

The goal of STARS TA is to establish and support the implementation of an action plan that will assist eligible providers in meeting the appropriate standards of quality and in moving up to higher STAR levels. This brief presents research findings which demonstrate that childcare providers receiving TA are more likely to advance STAR levels compared to Keystone STARS providers that did not.

There were 672 providers that received some form of STARS Technical Assistance and participated in Keystone STARS for all of fiscal year 2009-2010. Over half of these providers (365) successfully completed the TA action plan by the end of the fiscal year, averaging just over 18 hours of direct consultation. One third of the providers (218) were still actively receiving technical assistance by the end of the fiscal year, with an average of 16 hours of consultation. The remaining 89 providers had withdrawn or deferred their TA plan after receiving an average of less than eight hours of consultation.

for TA) to the STAR level on June 2011. All childcare providers (78) with an initial STAR level of STAR 4 were not included in the analysis given that they are unable to advance any further. Odds and odds ratios were calculated for STAR level movement for 505 STARS providers receiving TA compared to 2,255 providers not receiving assistance.

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**Findings**

Half of childcare providers (50.5%) receiving TA achieved a higher STAR level compared to one third of all other Keystone STARS providers (32.2%). Table 1 below

presents the odds of moving up a STAR level given receipt of STARS TA.

Table 1: Odds of Moving up a STAR Level after TA in FY 2009-2010

	# Received TA	% Move Up	# Did not Receive TA	% Move Up	Odds Ratio	95% Confidence Limits
Overall	505	50.5%	2255	32.2%	2.2*	(1.8, 2.6)
Completed	317	54.6%	2255	32.2%	2.5*	(2.0, 3.2)
Still active	188	43.6%	2255	32.2%	1.6*	(1.2, 2.2)
Provider Type <sup>a</sup>						
Family	57	70.2%	450	35.8%	4.2*	(2.3, 7.7)
Group	28	53.6%	192	19.3%	4.8*	(2.1, 11.0)
Center	420	47.6%	1613	32.7%	1.9*	(1.5, 2.3)
STAR Level <sup>ab</sup>						
Start with STARS	19	94.7%	292	88.7%	2.3	(0.3, 17.7)
STAR 1	178	66.3%	1161	25.3%	5.8*	(4.1, 8.1)
STAR 2	216	41.7%	557	18.5%	3.2*	(2.2, 4.4)
STAR 3	92	31.5%	245	28.6%	1.2	(0.7, 1.9)

Note: <sup>a</sup> Provider Type and STAR Level statistics include providers that completed TA and who were still active at the end of the fiscal year. <sup>b</sup> STAR Level represents STAR rating at the time TA is requested. \*  $p < 0.01$ .

Overall, the findings reveal that the odds of advancing a STAR level for providers receiving TA are 2.2 times greater than the odds for providers not receiving TA; the odds are higher for those who completed their TA action plan. When examining the odds ratios by provider type and STAR level, the largest effects are found for family

and group childcare providers and those who start at lower STAR levels. The segment of providers with the largest effect was STAR 1 facilities whose odds of moving up were nearly six times greater when receiving TA. Across all provider types and levels, providers receiving TA had higher rates of moving up a STAR level.

**TA Sticky Factor 2010-2011**

To further assess the effectiveness of TA, Keystone STARS introduced the “sticky factor” to determine how well a childcare facility has retained the knowledge and skills provided by the consultant. Sticky factor is the measure of the change that remains three to six months or longer after the TA consultant has completed services and closed the plan. The Regional Key TA Manager collects this information by conducting a follow-up survey to the

program that has received services to determine if each goal continues to be met/not met at that point in time. Goals marked as “Met” are considered achieved or “sticking” and goals marked as “Not Met” are considered not sticking. Fifty percent or more of all Action Plan goals must be met in order for the action plan to be considered “sticky.”

Table 2: Percent of Action Plans Sticky by STAR Level in FY 10-11

	# Providers evaluated	% Action plans Sticky
Start with STARS	12	75.0%
STAR 1	39	87.2%
STAR 2	64	87.5%
STAR 3	27	92.6%
STAR 4	22	95.5%

Table 2 shows the percentage of TA action plans that were found to be sticky based on 164 plans that were closed and evaluated in the fiscal year 2010-2011. Overall, there is a positive trend based on quality of care. Although lower STAR level provider were more likely to

move up STAR level when receiving TA, the higher STAR level providers were more likely to meet a greater percent of their TA action plan goals. Future work will use 2011-2012 STAR movement data to examine the relationship of sticky TA to quality improvement.