

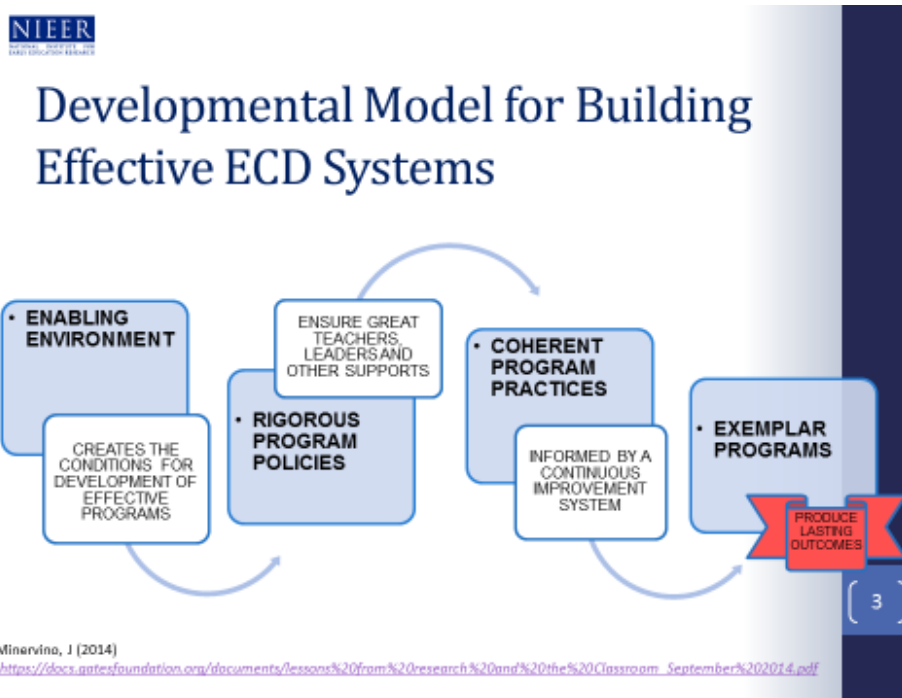
Determining System Components and Recommendations for Improvement and Resources for PHLpre-K

Prepared by Ellen Frede, Amy Hornbeck and Milagros Nores

January 2019

Recent results from the *Evaluation of the Philadelphia PreK Program. Year 2ⁱ* revealed that although sample classrooms are providing moderate levels of quality in emotional support for children and in organizational practices in the classroom, teacher-child interactions are rarely observed that are likely to lead to improved learning outcomes. Children are afforded opportunities to engage in a variety of activity settings but spend too much time in activities that will not lead to learning. Additionally, these results did not vary in any systematic way (e.g. classrooms in public schools or with higher STAR ratings did not score better than other classrooms.) Higher quality classrooms, defined as those that exhibit less time in transition, more time with content areas, more scaffolded learning and more often integrate content, represented a small fraction of the sample. Not surprisingly, given these classroom practices, the study did not find positive effects of the program on children’s learning gains.

The over-arching recommendation derived from these results is that increasing classroom quality is necessary if improved child outcomes are to be realized. However, there is no single ingredient that will improve classroom quality. This is illustrated in the theory of change figure below showing the development of an effective pre-k system. Initially, there needs to be an Enabling Environment with political support, public will and



strong leadership. This creates the conditions for resources to develop effective programs with Rigorous Program Policies. The Program Policies ensure qualified teachers with competent leaders and other supports. These policies are the necessary but not sufficient ingredients to form the foundation for Coherent Practices at the program level including high quality teaching that are improved with regular use of data. Taken all together this leads to Exemplar programs that produce lasting benefits in education, health and general well-being.

Table 1 Critical Components of Effective Pre-K Systems provides more details on the component parts of the theory of change model above and adds information on the current status of PHLpre-K. As can be seen, the only components that PHLpre-k currently fully meets are the two structural elements of class size/ratio and dosage and the requirement for screening and referrals to identify health and developmental concerns.

Table 1: Critical Components of Effective Pre-K Systems		
Component	Standard of Excellence	Current Status of PHLpre-K
Enabling Environment		
Administrative leadership	A compelling vision and strong leadership from elected and appointed officials as well as early learning leaders.	It is clear that elected and appointed officials are supportive, and even champions, of the program. What is less clear is whether they have the vision to fund and implement a program that is primarily focused on improving the educational trajectory of children. To do this the program must meet all of the critical components of effective pre-k systems.
Infrastructure	Robust infrastructure: data systems, oversight coupled with support from administrative body, responsive governance, rational eligibility and site selection procedures.	None of the elements are fully met at this time.
Rigorous Program Policies		
<u>Instructional staff</u>		
Site instructional leader qualifications and compensation	Qualifications that at least meet those of the teachers plus competency in administration and personnel management. Compensation that meets qualifications.	No specific requirement. 14% of center directors have only an AA degree and 4% have just some college credits. Specialized knowledge in ECE or management is not known but workshops are offered as part of PHLpre-K
Teacher qualifications and compensation	Well-educated (BA & ECE teacher license) and well-compensated teachers (K-12 pay parity)	No BA required. Teacher must have an associate's degree in ECE or related field. No specific guidance or regulation on teacher compensation.
Assistant teacher qualifications	Assistant teacher has at least a CDA or equivalent preparation with appropriate pay scale	CDA or 6 credits of ECE content as defined by the PA Career Pathway. No specific guidance or regulation on assistant teacher compensation.
<u>Structural elements</u>		

Maximum class size & low child: staff ratio	Maximum number of children pre classroom is 20 or fewer. Ratio of staff to children is 1:10 or better.	Yes. Maximum of 20 and 1:10
Dosage	Hours equivalent to a full school day & school year.	Yes. Minimum of 5.5 instructional hours per day for 180 days
<u>Policies to support integrated systems</u>		
Early learning & development standards	Comprehensive, aligned with state infant & toddler and K-3 or college\career ready standards, aligned with culturally sensitive and supported child assessments	Yes. Pennsylvania Learning Standards (birth to age 8) and sites must use an aligned observation assessment tool approved by state.
Curriculum supports	Approval process for selecting curriculum that will meet the ELDS.	Use an OCDEL approved early learning curriculum aligned to the PA Early Learning Standards. Information collected on what curriculum is used.
	Measure of curriculum fidelity	No
	Supports provided for curriculum implementation	Only sporadically
Services to support inclusion and positive behavior	Clear regulations and guidance that require inclusion where appropriate Specialists provided to support pre-referral and referral process as well as implementation of the IEP	No specific supports to classroom staff. Currently there is funding to support 3 specialists to assist with challenging behaviors. Training in the Pyramid Model has been extensive but no information about implementation. CLASS scores on Negative Climate, Classroom Management would support that the techniques recommended in the model are being implemented.
Services to support dual language learners	Programs have a well-developed plan for educating young DLL children. Specialists provide support for development and implementation of the plan with guidance, materials, and professional development. The goal is to have bilingual teachers lead classrooms where there is dominant language other than English.	No specific support.
<u>Coherent Program Practices</u>		
Staff professional development (PD)	Teacher and assistant teacher develop individual PD plans informed by data that determine their on-going, coherent and personalized in-service and coaching	There is not a coherent coaching or PD model. PHLpreK staff or administrator must attend at least 75% of additional training as required by PHMC or the City. The training is primarily matched to observed needs but not deployed for all observed needs. TA is provided through leveraging other sources but since it is not provided directly by PHLpreK, the specific content of TA is not systematic and coherent. Centers can access it around specific topics for a limited amount of time, then they can re-apply but there may be a long wait

		because of demand. TA providers do not have a common approach and have not been systematically trained.
Screening & referral	Screenings and referrals for vision, hearing, and health	Yes. Requires at least one developmental screening within 45 days of the child's first day using a reliable and valid screen. Verify at least one vision, dental and health screening obtained within 60 days of enrollment. Requires referral of any child with an identified concern to ELWYN for assessment.
Continuous quality improvement system	Data-driven decision-making and independent evaluation Annual assessment of classroom quality and program practices Information collected is used to guide classroom and program improvement	Not fully met. Elements of a complete CQIS are in policy. Must conduct continuous child observation to assess child outcomes using an OCDEL approved tool twice per year. Observation records must be included in the child's file. Training provided on the two most commonly used assessment tools: Teaching Strategies GOLD and Pearson Work Sampling System. External evaluation provides information on classroom observations. This information goes to providers for use in program improvement through individual provider reports. The program builds on Keystone STARS and Success by 6 programs. This system assumes that center staff can interpret results, plan improvements and implement them without outside consistent assistance or guidance.

The following recommendations focus on a long term objective of implementing all of the critical components of an effective pre-k program by the 2023-2024 school year and includes immediate and interim steps to achieve the long-term objective. Where applicable, immediate budgetary implications are in green font and indicated with an * and cost estimates are provided in the last table.

These recommendations are based on the fact that high quality is the key to effectiveness making it imperative that quality standards are not sacrificed in order to expand access.ⁱⁱ The need for rapid and efficient growth will require that Philadelphia take advantage of existing resources. While some programs will need time to meet the new standards, it is imperative that the MOE stay as close to the ultimate goal as possible. Philadelphia voters approved funding to implement a program that promised to substantively improve the schooling outcomes and life success for all children, PHLpre-K must deliver. Providing anything less than what the research shows is necessary will not deliver results and could threaten the long-term existence of PHLpre-K. Other locations that have increased access with the intention of improving quality later have typically created a constituency that impedes further movement to standards. A program that starts off by adhering closely to the quality standards is the safest and most effective method.

Component	Long Term Recommendation	Immediate Steps
<p>Enabling Environment</p> <p>Administrative leadership & Infrastructure</p>	<p><u>Vision:</u> A vision that PHLpre-K is primarily focused on improving the educational trajectory of children. All decisions must be made with this vision at the forefront and funding must ultimately support all of the Critical Components of Effective Pre-K.</p> <p><u>Governance:</u></p> <ol style="list-style-type: none"> 1. Mayoral Inter-Office Early Learning Council: An inter-office committee chaired by the MOE provides policy and oversight responsibilities. 2. PHLpre-K Advisory Committee: An appointed advisory group that provides recommendations the Inter-Office Early Learning Council, to provide on-the-ground advice on full implementation of quality program standards and on enhancing the coordination and quality of early childhood systems from pregnancy through age 8. <p><u>Rational eligibility and site selection procedures:</u> Ultimately, to make it equitable and sustainable, PHLpre-K should be accessible to all 3 and 4 year olds in the city and funded at levels comparable to K-12 per pupil rates.</p> <ul style="list-style-type: none"> • Site selection and retention should be determined entirely based on ability to implement the program standards and practices within the budget allowed. • Budget guidance and worksheets should be completed by sites with TA support in budget development and business administration provided. • Accountability measures should include audits of all 1st year sites with randomly selected sites audited annually. Sites may be nominated for an out-of-cycle audit based on suspicion of fiscal mismanagement or malfeasance. 	<p><u>Vision:</u> Establishing this vision should be the first action of the Mayoral Inter-Office Early Learning Council with full approval of each representative’s principal.</p> <p><u>Governance:</u></p> <ol style="list-style-type: none"> 1. Membership should initially include a member of the mayor’s staff, a city council representative, a school district pre-k and special education administrator and appropriate leads in other city offices that interface with pre-k (eg CEO, DHS, PDPH, DBHIDS, OHS, etc). As PHLpre-K matures the composition may change. 2. Membership on the advisory committee should draw from the recommendations listed in Appendix A. Form semi-permanent workgroups bringing in other experts and stakeholders to advise on: Finance; Program Standards; Program Practices; and Program Evaluation <p><u>Rational eligibility and site selection procedures:</u> The current per pupil reimbursement of \$8500 is inadequate to meet the Critical Components and with the funding projected to serve only 13% of the population of 3 and 4 year olds, PHLpre-K should initially plan to develop “model centers” which can be proof points for the concept of high quality pre-k to support full expansion. The models can be used as training locations for all preschool programs in the city.</p> <ul style="list-style-type: none"> • Restrict site eligibility to programs that have other funding sources to increase the per pupil funding to levels as close as possible to K-12 if all program standards are met. • Allow sites 4 years to meet all standards including staff. qualifications recommended below and with classroom quality scores in each classroom of at least 5 on the ECERS-3, 3 on IS on CLASS or comparable scores on other classroom quality measures. • Set site specific funding levels based on the following:

Component	Long Term Recommendation	Immediate Steps
	<p><u>System of shared services</u>: The city or its designee provides access to shared services such as health and retirement benefits; equipment, materials and supplies; accounting including payroll, etc.</p> <p><u>Linked data systems</u>: Establish a data system that links child data across offices and with the school district to support the Continuous Improvement System described below.</p>	<ul style="list-style-type: none"> -Funding by classroom not by slot. The funding is not adequate as it is. If it is diluted by lower per pupil funding of other children in the same classroom, it is not possible to meet adequate funding levels. -Line item budget by site with a default assumption of at least 6 classrooms per site to minimize administrative costs per classroom. The line item budget would take into account other funding sources. This necessitates reducing the number of PHLpre-K sites from the current 78 to no more than 56 when fully scaled to serve 5600 children. Use a competitive process that ensures that the programs with the most promise to meet all critical components are funded first. Estimate the full cost of meeting all full-quality program standards*. <p><u>System of shared services</u>: Conduct an analysis to determine cost savings of providing different shared services*.</p> <p><u>Linked data systems</u>: The Inter-Office Early Learning Council should establish a sub-group to design, cost out and implement a data sharing linked system*.</p>
Rigorous Program Policies		
<u>Instructional staff</u>		
Site instructional leader qualifications and compensation	<p>Every site has a full-time instructional leader (IL) who may have other responsibilities.</p> <ul style="list-style-type: none"> The IL provides on-site coaching and other supports to teaching staff aimed at fidelity of curriculum implementation; rigorous, reliable and useful child assessment; and high quality teaching. The IL is compensated based on qualifications but all ILs must have expertise in early childhood education, the chosen curriculum and assessment system and principles of adult learning. If the IL is also the business administrator, then expertise in supervision and administration is required. 	<ul style="list-style-type: none"> A recommended salary scale similar to the one attached should be established. In lieu of formal college credit, a coherent and personalized system of professional development with measures of mastery could be provided for either ECE expertise or business/fiscal management. (See professional development below).
	<ul style="list-style-type: none"> Coaching of coaches (Early Learning and Inclusion Specialists) should be provided to ILs by the city or city contractor. IL coaches 	<ul style="list-style-type: none"> Select and train a cadre of Early Learning Inclusion Specialist coaches and Business TA coaches*.

Component	Long Term Recommendation	Immediate Steps
	<p>must possess all of the qualifications of an IL and have expertise to support inclusion of children with disabilities (e.g. experience working in inclusive settings). By 2023, a ratio of one ELIS to every 5 centers on average should be provided.</p> <ul style="list-style-type: none"> • TA in business administration should be provided to site administrators. No more than 2 fiscal TAs are needed unless this position also conducts audits. • Note: This system is designed for private provider sites (child care and Head Start) and should be personalized to the context. For example, Head Start agencies or child care centers that are part of a larger organizations (e.g. the YWCA or Catholic Charities) should not need the level of administrative support that a stand-alone child care center director might need. Additionally, a different system of coaching may be more appropriate for the public schools. 	<ul style="list-style-type: none"> • When fully scaled to 5600 children, with a conservative assumption of 5 classrooms in 56 sites, 6 ELIS will be needed. This assumes that ILs are in place and fully qualified. • PHLpre-K currently serves far fewer children in approximately 158 classrooms in 78 centers which affords the opportunity of providing a hybrid coaching approach in which ELIS co-coach in classrooms with the ILs to assist the ILs to become fully qualified and to ensure more rapid improvement in classrooms. • During this period of expansion and co-coaching, the recommended ratio of ELIS to classrooms is one ELIS to every 15 classrooms if the teachers are not yet fully qualified. Currently, we estimate the need at 10 ELIS but this assumes some reduction in the number of centers that are funded by PHLpre-K. • If this ratio is not achievable then MOE should consider identifying the locations with the most promise of becoming a model site and that serve the largest number of PHLpre-K funded children. These model sites would receive more intensive targeted TA and coaching and serve as training locations and proof points for higher quality. Spreading the coaching across a larger number of centers if the ratio is not achievable will result in such a weak treatment that little impact can be expected.
Teacher qualifications and compensation	<p>Research-supported recommendation:</p> <ul style="list-style-type: none"> • Teachers in PHLpre-K classrooms should have at least a bachelor’s degree and hold a P-4 teacher license. Their compensation should be linked to the school district salary schedule. They should also be expected to teach for the same instructional hours and be afforded planning time. • This is a necessary but not sufficient component of effective preschool. Without it, PHLpre-K will be unlikely to provide the quality of instruction needed to have sustained benefits for children. Additionally, the program will suffer from unending turn-over and the costs associated with it. <p>Experimental recommendation:</p>	<ul style="list-style-type: none"> • Institute a salary scale that incentivizes teachers to complete a 4-year degree with certification and build this into the line-item budget. • Convene an IHE workgroup to help design a scholarship program and set of courses that provide credit for attending PHLpre-K on-going professional development (see below) and for participating in coaching. Investigate becoming part of the EarlyEdU Alliance and using the very high quality on-line courses to supplement in-person training.* • Develop a micro-credential that is consistent with the credit-bearing PD and coaching to be adopted by all AA

Component	Long Term Recommendation	Immediate Steps
	<p>If after more investigation it is determined that the budget can not support matching the school district salary scale and/or that the teacher shortage in the district creates too much competition for teachers, then we recommend conducting an experimental two-part system:</p> <ul style="list-style-type: none"> • Design a competency-based, rigorous AA-degree in ECE (that incorporates the micro-credential suggested in the next column) with a city-awarded credential which allows a teacher to teach in PHLpre-K for four years while completing the requirements for an applied BA. Pay a salary that is competitive with what an instructional aid would receive in the public schools (\$29,000). • Design an applied BA in ECE that expressly builds on the AA degree. Allow four years to completion and when attained pay a salary that is somewhere between the district salary scale (average \$66,000) and the AA degree salary possibly \$48,000. 	<p>granting institutions. It could also be completed by current teachers who hold a BA in another field and used in lieu of P-4 certification. Compensation for teachers with these credentials would be less than that of a fully certified teacher*.</p>
Assistant teacher qualifications	Meets critical component.	Consider accepting the micro-credential described above as equivalent to a CDA and allow current assistant teachers 2 years to completion.
<u>Structural elements</u>		
Maximum class size & low child: staff ratio	Meets critical component	Could consider reducing class size for inclusion classrooms or those with majority 3 year olds.
Dosage	Meets critical component	Recommend giving priority to programs that offer full-day, full-year child care.
<u>Policies to support integrated systems</u>		
Early learning & development standards	Meets critical component	Coaches, curriculum model PD providers and others should ensure that all PD is designed to support teachers in understanding and implementing practices which lead to attainment of the ELDS. Declaring a curriculum model and assessment system to be aligned is not enough to ensure that children are receiving support to attain the outcomes.
Curriculum supports	<p>Relying on the OCDEL approved curriculum choices ensures that the curriculum will meet the ELDS. However, it results in so many different curriculum models that designing a coherent coaching and PD system would be inefficient and costly.</p> <ul style="list-style-type: none"> • Provide incentives and support for no more than 3 approved curriculum models, ensure that the ELIS are experts in at least 2 models and can provide supplemental PD and 	<p>Currently, Creative Curriculum is used in 65% of the classrooms and Mother Goose is in 15% but these are not leading to impressive scores in instructional support or in child gains. This could be due to poor implementation but neither curriculum has a strong record of effectiveness. It makes sense to build from what is already familiar and being implemented but at the same time investigate new opportunities.</p>

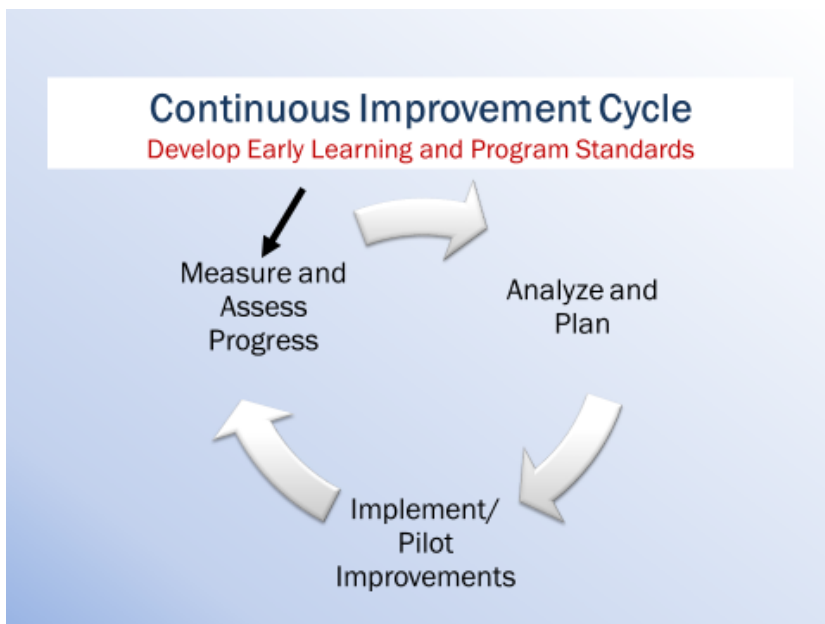
Component	Long Term Recommendation	Immediate Steps
	<p>coaching specific to the curriculum model(s). Integrate the approved curricula into pre-service coursework and IL professional development.</p> <ul style="list-style-type: none"> • Require that PHLpre-K sites adopt one of the approved models. • Assess curriculum fidelity and coach for improvement. • Measure classroom implementation and child outcome results across curriculum models to determine whether to continue recommending each model. • Allow providers to apply for a waiver by showing evidence that their existing curriculum model is performing as well or better than approved models and that they can support fidelity of implementation. 	<p>There are a number of issues to consider when adopting a curriculumⁱⁱⁱ including whether it is a good fit for the teachers and children. Currently, the teachers in PHLpre-K need a fairly scaffolded curriculum that provides clear guidance on what and how to teach since their instructional practice is measurably low.</p> <ul style="list-style-type: none"> • Invest in improving implementation of Creative Curriculum using the most scaffolded versions of the lessons. Focus PD around that model for now*. • Form a subcommittee of the advisory council to investigate other more scaffolded, content-rich and systematic curricula such as Connect4Learning^{iv} (designed by experts in each domain of learning to be an integrated curriculum) and the Boston Public Schools curriculum^v (which is free and has some of the best evidence of effectiveness with children.) Either of these models can be implemented on the base of Creative Curriculum should PHLpre-K choose to add them as choices so that initial training in Creative Curriculum will still be useful.
Services to support inclusion and positive behavior	<ul style="list-style-type: none"> • Serve children with disabilities in the regular pre-k classroom to the fullest extent possible at a proportion of no more than 2 children with IEPs per classroom (10%). • Fully implement the Positive Behavioral Support Pyramid model for prevention and amelioration of challenging behaviors. 	<ul style="list-style-type: none"> • Implementing the ELIS recommendations coupled with fully defining roles of agencies across health, ELWYN, and public schools should meet this component.
Services to support dual language learners	<ul style="list-style-type: none"> • Integrate into all relevant PD and coaching, methods of supporting children who are acquiring English as a second language (i.e. dual language learners). • Create model dual language of instruction training classrooms serving 50% home language English and 50% home language Spanish. 	<ul style="list-style-type: none"> • Among the ELIS ensure that at least 2 staff have expertise in dual language acquisition. Have them serve as expert consultants to other ELIS.
Coherent Program Practices		
Staff professional development (PD)	<ul style="list-style-type: none"> • A coherent, integrated, comprehensive PD curriculum based on a defined set of competencies for each job category (i.e. ELIS, IL, teacher, assistant teacher – often in the same training as teachers.) A coherent, integrated and comprehensive PD curriculum requires that a series of workshops, communities of practice and on-site coaching be designed that are based on competencies but purposefully introduce strategies that improve curriculum or coaching 	<ul style="list-style-type: none"> • Adopt or adapt defined competencies for each job category*. • Design integrated PD to train to mastery in the competencies and adapt to specific curriculum models and assessment systems*.

Component	Long Term Recommendation	Immediate Steps
	<p>implementation, provide opportunities to practice new strategies and receive reflective coaching, and facilitate peer-to-peer support for challenges in implementation especially focused on data gathered about individual children or teachers. This integrates curriculum implementation, child assessment and professional development.</p> <ul style="list-style-type: none"> • Experienced staff become PD providers or co-presenters. • New and refresher sessions developed based on results of data collection described below. 	
Screening & referral	Meets critical component.	Implementation can be improved through Inter-Office Council and the advisory committee.
Continuous quality improvement system	<p>Implement a data-driven decision making at every level</p> <ul style="list-style-type: none"> • Child & family • Teacher/classroom • Site/center, school • City <p><i>See below below for more details.</i></p>	<ul style="list-style-type: none"> • Charge the appropriate advisory committee workgroups to articulate and design the CQIS for every level*. <p><i>More specific recommendations are described below at the child , classroom, center and city levels.</i></p>

Continuous Quality Improvement System

Long-term Recommendation

The following two figures provide more information on the CQIS.



Continuous Improvement System Components		
Standards	Data: Monitoring for Progress	Improvements/Support
Early learning standards	-Formative child assessment	-Strong curriculum -Professional development workshops
Instruction criteria	-Aggregated child data -Systematic classroom quality observations that change as program matures	-Reflective coaching -Professional learning communities
Program Policies	-Aggregated child and classroom data -Program self assessment & validation rubric	-Coaching seminars with credential -Educational leadership seminars
Governing body expectations	-Program evaluation using rigorous design and sampling methods	-Regular technical assistant visits

CQIS Immediate Steps

Child assessment

- Choose a single on-going child assessment system that is clearly aligned to the curriculum model(s).
- Reduce the number of items scored to those that 1) develop along a trajectory of learning; 2) are clearly predictive of later school success; and 3) are observable in the course of typical classroom activities.
- Embed understanding of trajectories into PD and coaching. Provide training to establish inter-rater reliability among teachers. Create professional learning communities at the center level to share children’s work, calibrate scoring and assist teachers in determining next steps for children based on results
- Review aggregated scores at the classroom, center and city level. Use to determine improvements in assessment practice, curriculum implementation, and coaching/PD.

[Note: The highly effective Boston Public Schools (BPS) pre-k program does not use an on-going child assessment system, although it does use all other aspects of the CQIS. BPS does, however, have highly qualified and compensated teachers implementing a scaffolded, content-rich curriculum with coherent and articulated PD and coaching supports.]

Classroom assessment

- Until the standards of quality for PHLpre-K are met, every classroom should be observed by program staff (IL or ELIS) at least at the beginning of each school year.
- Teaching staff should be included in self-assessment and personal improvement goal setting which should be used for informing reflective coaching.
- The initial focus should be on curriculum implementation. Thus, we recommend using whatever curriculum fidelity observation tool is available for the model(s) chosen. Depending on teaching levels, it may be advisable to use only parts of the tool initially that correspond to the PD in the model that has been delivered.

This could be augmented with the Teaching Pyramid Observation Tool (TPOT) given the concern teachers have expressed about challenging behaviors.

- Review aggregated scores at the program, ELIS and city level to inform improvements in PD and coaching.

Center assessment

- Design a center level self-assessment and validation system to measure implementation of program standards and administrative practices. Peer teams led by an ELIS conduct the validation visit and assist the center leaders/teaching staff in developing improvement plans.
- Aggregate the scores at the ELIS, BTA and city levels to inform administrative improvements.

City/PHLpre-k level

- Conduct formative program evaluation until the PHLpre-K is being implemented as intended at which point a more rigorous summative evaluation is justified. We estimate 2023 when the program is fully scaled and all of the long-term recommendations are met.
- Conduct classroom quality observations in randomly selected classrooms using currently administered observation tools until they no longer provide new information. Consider using a matrix sampling frame in which different observation tools are used in different randomly selected classrooms. The purpose of these observations is to see how the whole system is performing not to drill down to individual centers or classrooms. The advantage of matrix sampling is that more and different information is obtained while reducing the burden on any given classroom and increasing the number of classrooms represented in the data.
- Design a matrix sampling frame for administering direct child assessments. Randomly selected children would be assessed in only one domain (e.g. executive functioning, oral language, early literacy, math). Similar to matrix sampling for classrooms assessments, this would provide broader information while reducing the burden on the child somewhat. However, the greatest advantage of matrix sampling is that each domain can be assessed with a more robust instrument. Thus, the time for administering each test is only slightly less than the battery currently being used. All children would receive the PPVT to allow for comparison among the sample and to compare with previous years. Please note that no comparison sample would be added for out-going years. Instead, the PPVT gain scores in Years 1 and 2 would be used as baseline for comparison.

Estimated Costs of Recommended Immediate Steps

It is assumed that most of the immediate steps outlined above, if adopted, can be implemented with currently available staff or resources. The following may need specialized consultants or entail other costs which are estimated below. With competing priorities, many of these may not be able to be funded. We recommend funding all of these steps but would prioritize the following ones:

- Estimate the full cost of meeting all full-quality program standards.
- Select and train a cadre of 10 Early Learning Inclusion Specialist coaches and 2 Business TA coaches.
- Invest in improving implementation of Creative Curriculum using the most scaffolded versions of the lessons. Focus PD around that model for now.
- Adopt or adapt defined competencies for each job category.
- Design integrated PD to train to mastery in the competencies and adapt to specific curriculum models and assessment systems.
- Charge the appropriate advisory committee workgroups to articulate and design the CQIS for every level.

Component	Immediate Steps	Estimated Cost of Immediate Steps
Enabling Environment		
Administrative leadership & Infrastructure	1. Estimate the full cost of meeting all full-quality program standards.	1. \$5K – 10K depending on amount of city/PHMC involvement and support
	2. Conduct an analysis to determine cost savings of providing different shared services.	2. \$15K unless it can be done in-house.
	3. The Inter-Office Early Learning Council should establish a sub-group to design, cost out and implement a data sharing linked system.	3. \$10K to hire an expert to facilitate and do background work. Full cost per year during build up is estimated at \$600K until system is built – 2-4 years depending on current data warehouse. This would serve entire city and link data for children across all services.
Rigorous Program Policies		
Site instructional leader qualifications and compensation	4. Select and train a cadre of 10 Early Learning Inclusion Specialist coaches and 2 Business TA coaches.	4. Total salary cost of 10 ELIS is estimated at \$900,000 per year for up to 5 years. Training costs are included below in PD.
Teacher qualifications and compensation	5. Convene an IHE workgroup to help design a scholarship program and set of courses that provide credit for attending PHLpre-K on-going professional development (see below) and for participating in coaching. Investigate becoming part of the EarlyEdU Alliance and using the very high quality on-line courses to supplement in-person training.	5. Cost of facilitator with teacher prep expertise to manage and support workgroup \$15K.
	6. Develop a micro-credential that is consistent with the credit-bearing PD and coaching to be adopted by all AA granting institutions. It could also be completed by current teachers who hold a BA in another field and used in lieu of P-4 certification. Compensation for teachers with these credentials would be less than that of a fully certified teacher.	6. Cost of facilitator with teacher prep expertise to manage and support development of micro-credential \$15K.

Component	Immediate Steps	Estimated Cost of Immediate Steps
	<p>7. Convene an IHE workgroup to help design a scholarship program and set of courses that provide credit for attending PHLpre-K on-going professional development (see below) and for participating in coaching. Investigate becoming part of the EarlyEdU Alliance and using the very high quality on-line courses to supplement in-person training.</p> <p>Develop a micro-credential that is consistent with the credit-bearing PD and coaching to be adopted by all AA granting institutions. It could also be completed by current teachers who hold a BA in another field and used in lieu of P-4 certification. Compensation for teachers with these credentials would be less than that of a fully certified teacher.</p>	<p>7. Cost of facilitator with teacher prep expertise to manage and support workgroup \$15K.</p> <p>Note: These should be combined into one contract and could go to a participating IHE.</p>
Curriculum supports	<p>8. Invest in improving implementation of Creative Curriculum using the most scaffolded versions of the lessons. Focus PD around that model for now.</p>	<p>8. According to Teaching Strategies the cost per training group of 35 (28 teachers + 5 ILS and 2 ELIS) is \$24K. This cost would need to be multiplied based on the number of centers selected for direct Creative Curriculum training. All ELIS who are not already expert in CC and coaching in CC should be included.</p>
Coherent Program Practices		
Staff professional development (PD)	<p>9. Adopt or adapt defined competencies for each job category.</p>	<p>9. Cost of consultant to provide scan of competencies and facilitate decision-making \$5K.</p>
	<p>10. Design integrated PD to train to mastery in the competencies and adapt to specific curriculum models and assessment systems.</p>	<p>10. Cost of consultant to facilitate decision-making and support the workgroup \$15K.</p>
Continuous quality improvement system	<p>11. Charge the appropriate advisory committee workgroups to articulate and design the CQIS for every level.</p>	<p>11. Cost of consultant expert in the components (child, classroom and program assessment) to facilitate decision-making and support the workgroups \$45K.</p>

Acknowledgments

Grateful acknowledgment is made to the William Penn Foundation for their financial support for this work under grant No. 16-17. The opinions expressed in this report are those of the authors and do not necessarily reflect the views of the William Penn Foundation. We are also thankful to the Mayor's Office from City of Philadelphia and PHMC for providing various background materials used in this report.

ⁱ Nores, M., Ba

mett, W.S. Li, Z. & M. Acevedo (2018). Evaluation of the Philadelphia PreK Program. Year 2 Report. New Brunswick, NJ: National Institute for Early Education Research.

ⁱⁱ Burchinal, M. R., Espinosa, L.M., Gormley, W.T., Ludwig, J., Magnuson, K. A., Phillips, D., & Zaslow, M.J (2013).

Investing in Our Future: The Evidence Base on Preschool Education retrieved from <http://fcd-us.org/resources/evidence-base-preschool>

ⁱⁱⁱ <http://nieer.org/policy-issue/policy-brief-preschool-curriculum-decision-making-dimensions-to-consider>

^{iv} <http://www.connect4learning.com/>

^v <https://www.bpsearlylearning.org/>