



# RENEW Los Angeles County Final Evaluation Report

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September 2012

## **Acknowledgements**

The author would like to thank the following individuals for their assistance with this report: Sandra Trinidad, Mary Turner, Rosa Valdes and Rita Keis.

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## Introduction

To ensure that the next generation is prepared to face the future, society attempts to provide children with the best beginnings and opportunities. However, startling trends in obesity demonstrate that these beginnings may be compromised. In the past 30 years, obesity has doubled among U.S. children between 3 and 5 years of age (Ogden, Carroll, Kit & Flegal, 2014; National Center for Health Statistics, 2012). However, with early interventions that create lifestyle habits fostering balanced nutrition and physical activity, obesity can be prevented. In fact, these habits can last a lifetime and can help to protect children against chronic diseases (Schwimmer, Burwinkle, & Varni, 2003).

Early childhood marks a critical period in human brain development, and sets the stage for learning and development of habits that are carried into adulthood. Preschool marks an opportunity for healthy habits to begin. Fostering good nutrition and physical activity practices in the classroom, and making connections with these practices at home, can establish healthy habits and support children's readiness to learn (Hagan, Shaw, & Duncan, 2008).

Los Angeles Universal Preschool (LAUP) is a nonprofit organization whose mission is to provide free, high-quality preschool education to 4-year-old children in L.A. County. Since 2004, LAUP has served more than 30,000 children by providing preschool services that prepare them for kindergarten. Since the beginning, LAUP has considered health and wellness to be an important area of focus in the education of young children, and has provided health and wellness support and resources to the more than 300 preschool providers in the LAUP network.

The purpose of the RENEW project is to reduce the risk of obesity among preschool-aged children by focusing on interventions using nutrition and physical activity. The project provides training, coaching, and resources on the principles of good nutrition and physical activity, targeted to preschool providers in L.A. County. It also offers strategies to incorporate materials into the classroom, and to effectively communicate with and support parents in making positive health-related changes at home.

The LAUP RENEW Project uniquely focuses on working with preschool providers to promote healthy choices for four-year-old children. The project also seeks to work with adults—namely, with the administrators, teachers, and parents who influence the lives of preschool-aged children the most.

The intended outcomes are three-tiered:

- Short-Term: increase knowledge and awareness of health and wellness policy, and increase knowledge about good principles in nutrition and physical activity.
- Intermediate: Increase self-perceived ability to implement and support good nutrition and regular physical activity practices.
- Long-Term: Providers and parents will implement and support good nutrition and regular physical activity practices.

In addition, the LAUP RENEW Project leaders hope that the program can serve as a model that can be implemented in all preschools across L.A. County. Figure 1 below is a flowchart of the LAUP Renew Project, demonstrating how it began, its current implementation, and what it intends to become.

Figure 1. Flowchart of RENEW LA County Project Development



## Summary of Findings

The study of RENEW L.A. County during its second year of implementation found that preschool providers were knowledgeable about nutrition and physical activity guidelines and policies. It also found that parents are making healthy food and drink choices at home for their preschool children. Even so, numerous aspects of the RENEW program could contribute to increased knowledge of nutrition and physical activity policies among parents, in order to strengthen children’s habits when it comes to food and physical activity. In general, the following findings emerged:

- Training sessions, toolkits, coaching, and an advisory team all proved supportive and useful for policy implementation by preschool providers.
- Preschool providers were very knowledgeable about nutrition and physical activity guidelines, but parents were not as knowledgeable.
- LAUP preschools complied with most of the important aspects of their health and wellness policies, but could strengthen their parent training practices to communicate more knowledge about the benefits of healthy choices at home.

The findings section below provides details from which these general findings emerged.

### **Finding: During the 2010-11 school year, RENEW L.A. County was in its Pilot year in 12 preschools. Project leaders took lessons learned from the pilot year to refine their project logic model and make small changes to the program delivery.**

Participation in RENEW was voluntary. LAUP preschool providers who wished to participate applied and were subject to a set of selection criteria. A provider’s prior experience with LAUP’s Health and Wellness Initiative, as well as the preschool administrators’ support of policies and procedures affecting nutrition and physical activity, were just two of many criteria for selection. The complete list of criteria is displayed in Figure 2. LAUP preschool providers under probationary status were disqualified from participation, and an additional 10% (approximately) of applicants did not meet the participation criteria for RENEW L.A. County.

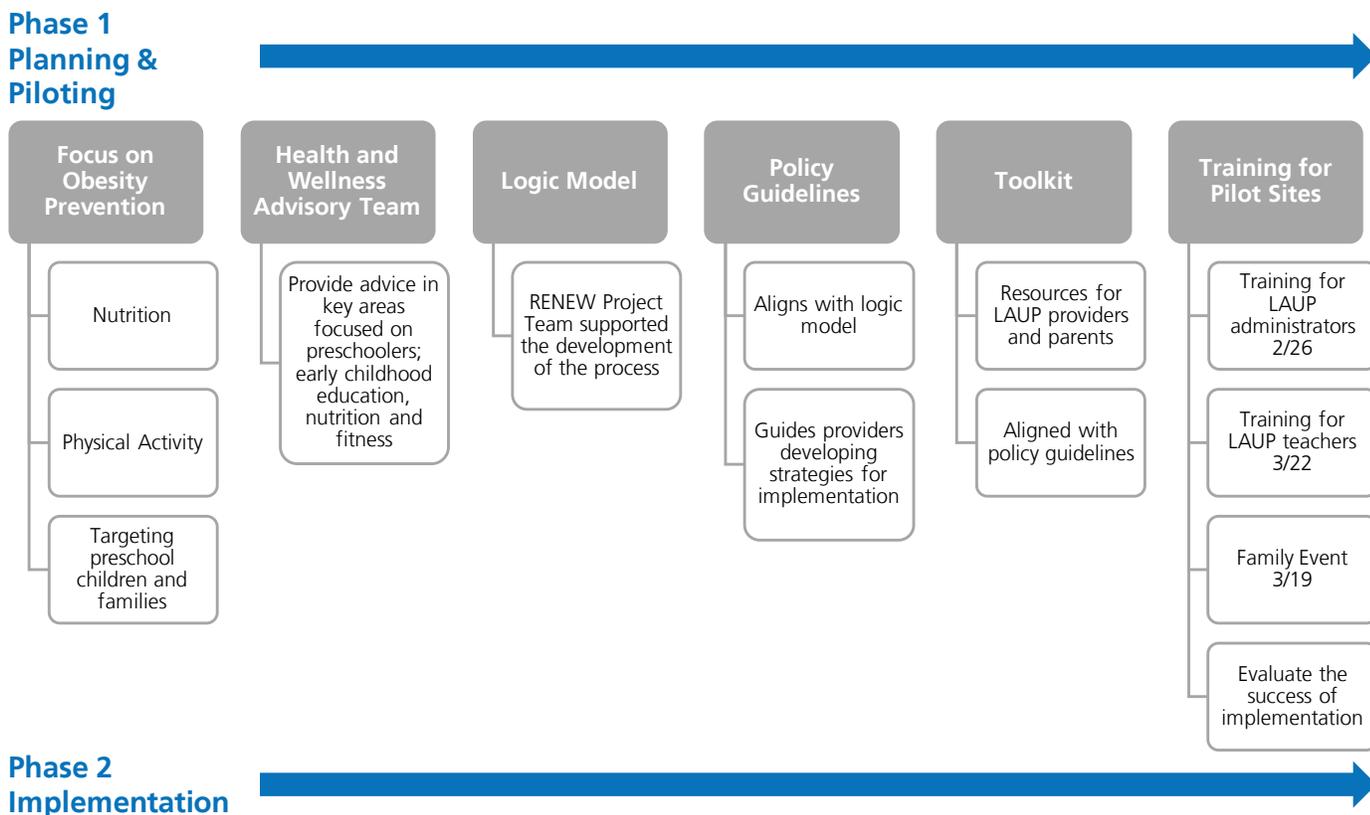
In all, a total of 71 LAUP providers across all five L.A. County supervisorial districts were selected to participate in RENEW in 2011-2012, and these participants represented a variety of preschool providers within the LAUP network. Participants included both Family Child Care Centers (FCCs) and Center-based providers, including some centers run by local school districts. Providers selected the priority areas they would focus on, and planned for implementation of policies that encouraged these changes at their sites.

Figure 2. RENEW L.A. County Provider Participation Criteria

- Site has prior experience with LAUP’s Health and Wellness Initiative
- Site has a history of working on new projects and completing requirements in a timely manner
- Site is interested in participating in obesity prevention
- Site represents the diversity of LAUP providers (FCC, Private, etc.)
- Site has a strong parent engagement program component at their site
- Site has existing policies on nutrition and physical activity or an awareness of their value in promoting health among preschoolers. If site doesn’t have these policies in place, then they are interested in developing and implementing them
- Site has a strong connection with its surrounding community
- Site administrators support policies and procedures affecting nutrition and physical activity policies
- Staff at the site are willing to share resources and strategies for developing health promotional activities with their peers

Figure 3 summarizes the RENEW L.A. County Project at LAUP. The figure captures the areas of support provided to sites.

Figure 3. RENEW Health and Wellness Model



**Finding: Participating LAUP preschool providers received focused training on the importance of healthy eating habits and physical activity as related to obesity prevention.**

Training for preschool administrators focused on policy, and training for preschool teachers and parents focused on practicing healthy eating habits and physical activities. A total of nine training sessions were held during Phase 2. They began in August 2011 and concluded in February 2012.

The first set of training sessions (a total of 3 sessions) focused on policy development and implementation. These training sessions were meant for preschool administrators and FCC providers.

The second set of training sessions (a total of 3 sessions) focused on classroom practices and policy implementation. During these sessions, RENEW project members and LAUP coaches worked with classroom staff to illustrate and practice some of the techniques and resources that can readily be used in the classroom to support physical activity and nutrition.

The three remaining training sessions covered the following topics:

- Using the Choosy Kids Kit Resource to promote healthy eating and physical activity
- Starting a preschool garden
- Building physical activity into the classroom via obstacle courses

**Finding: To assist with implementing this set of policy guidelines, participants were given a toolkit of resources to help implement the priority areas in physical activity and nutrition.**

The toolkit was developed by reviewing readily available resources found on the internet. Resources were collected and reviewed using a set of criteria that included developmental appropriateness, ease of use, and

appropriate content focusing on nutrition and physical activity. All of this information was compiled into a matrix that was later presented to members of the Health and Wellness Advisory Team (HWAT) for further input and recommendations. All of the resources that were considered appropriate were then included in the toolkit and organized according to the project priority areas.

Resources in the toolkit paralleled key policy guidelines and offered various tools to assist in implementing these policies in the classroom and home environments. A few resources in the toolkit were provided in Spanish for copying and distribution. The toolkit explained key principles facilitating the development of healthy behaviors in early childhood, with the goal of preventing obesity starting in preschool. It also went above and beyond its intended goal and included tips for parents on how to choose and store fruits and vegetables, how to use unit price to compare and save when shopping, and how to properly perform handwashing.

Figure 4. Teacher Toolkit Content

- Guiding Principles
- Nutrition
  - Meal Planning Guides
  - Portion Control
  - Breakfast
  - Healthy Food Choices
  - Healthy Beverage Choices
  - Tips for Picky Eaters
  - Eating More Fruits, Vegetables
  - Smart Shopping Tips
- Positive Role Modeling
- Nutrition Activities: Getting Kids Involved
- Healthy Choices for Celebrations & Fundraising
- Healthy Recipes for Cooking with Kids
- Physical Activity
  - Classroom Activities
  - Family Activities
- Gardening

A “Choosy Kit” of resources was purchased through Lakeshore, LLC, and distributed to each of the participating sites. These kits were chosen due to their ease of integration with already existing classroom lesson plans and curriculum. Little preparation was needed to begin using the kit, and most importantly, the kits were developmentally appropriate and focused on brain development in preschool children.

Figure 5. Choosy Kit Content

- Music CDs with health-enhancing songs
- Inspiring posters
- Picture book to reinforce key ideas
- Play food
- Fruit and veggie beanbags
- Activity scarves
- Wrist ribbons
- Parachute
- Activity balls
- Movement activity mats and cards
- Grocery store activities
- Nutrition and movement activity cards
- Growth chart
- Pocket chart with fruit and veggie sorting cards

**Finding: With the support of the Provider Operation Coaches, RENEW sites identified their own project goals, and the coaches added these into a tracking system called “RUGS”, for “Regularly Used Goals”.**

These goals were identified using quality improvement plans created during the first set of RENEW training sessions. Progress was monitored during regular monthly site visits; adjustments to the goals were made as necessary.

**Finding: The Health and Wellness Advisory Team was comprised of health professionals and early childhood education specialists. Their role was to inform and advise on various resources that were developed as part of this project.**

During the pilot year of RENEW, advisory team members served as a sounding board for concepts and products under development. The Health and Wellness Advisory Team refined the intervention when RENEW spread to cover more providers after the pilot year.

**Finding: Results revealed that LAUP preschools complied with most of the important aspects of health and wellness policies.**

All surveyed preschool providers reported that adults served as role models for healthy eating, either some of the time, most of the time, or all of the time. Of the same providers, 97% reported that adults modeled self-regulation and moderation during school hours either some, most, or all of the time.

Culturally appropriate resources were shared with parents some, most, or all of the time by 91% of providers. Eight percent of the sites said they rarely or never shared culturally appropriate resources with parents. Furthermore, culturally appropriate strategies to get parents to incorporate healthier food in their meals at home were in place at all except 9% of providers, who reported that culturally appropriate strategies to get parents to incorporate healthier food in their meals at home rarely occurred or were not a focus. See Table 2 for the complete results.

Table 1. Nutrition Policy

Nutrition Policy						
	Not a current policy focus/ Rarely or Never		Some/ Most/ All of the Time		Missing Data	
	#	%	#	%	#	%
All adults serve as a positive role model to encourage healthy relationships with food.	0	0%	36	100%	0	0%
All adults model self-regulation and moderation during school hours.	0	0%	35	97%	1	3%
Culturally appropriate resources are shared with parents.	3	8%	33	91%	0	0%
Culturally appropriate strategies are in place to encourage parents to incorporate a variety of healthy food and beverages including, more fresh fruits, vegetables, and whole grains in menus at home.	3	9%	33	91%	0	0%
Age-appropriate and culturally sensitive learning materials and activities are employed in the indoor and outdoor preschool environments to educate about/reinforce the benefits of healthy food and beverage choices as part of a healthy diet.	1	3%	35	97%	0	0%
Staff and volunteers are trained on the provider’s food and beverage policies in addition to state and federal regulations.	3	8%	33	92%	0	0%
Low-fat (1%) milk or nonfat milk and no more than 4 oz of 100% juice are served during snack or mealtime.	1	3%	35	97%	0	0%

Source: Nutrition and Physical Activity Checklist, February 2012

**Finding: Of providers surveyed, 22% incorporated physical activities with daily routines for less than 45 minutes each day, and 78% incorporated physical activities with daily routines for 45 minutes or more each day.**

Instructional time was planned to build connections with moving and learning most or all of the time; instructional time created a balance between physical and sedentary activities most or all of the time; and teachers were role models for physical activities most or all of the time. However, 3% of providers reported that planning instructional time to work with individual children’s abilities was something they rarely or never did.

Table 2. Nutrition and Physical Activities Practices

Nutrition Practices						
	Upon Request/ During Breaks		All of the time		Missing Data	
	#	%	#	%	#	%
Drinking water is available:	0	0%	33	92%	3	8%
	Rarely/ Some of the time		Most/ All of the time		Blank	
	#	%	#	%	#	%
Menus adhere to the USDA guidelines.	0	0%	35	97%	1	3%
All meals and snacks provided include a variety of fresh fruits, vegetables, whole grains and healthy beverages.	0	0%	36	100%	0	0%
Physical Activities Practices						
	Less than 45 minutes each day		45 Minutes or more each day		Missing Data	
	#	%	#	%	#	%
Positive learning experiences are provided by incorporating physical activity within daily routines.	8	22%	28	78%	0	0%
	Rarely/ Some of the time		Most/ All of the time		Missing Data	
	#	%	#	%	#	%
Instructional time is planned to work with individual children’s abilities.	1	3%	35	97%	0	0%
Instructional time is planned to build connections with moving and learning.	0	0%	36	100%	0	0%
Instructional time creates a balance between physical and sedentary activities.	0	0%	36	100%	0	0%
Teacher is a positive role model by actively participating with children in age-appropriate and culturally sensitive physical activities.	0	0%	36	100%	0	0%

Source: Nutrition and Physical Activity Checklist, February 2012

California Assembly Bill 2084, the Healthy Beverages in Child Care Act, took effect January 1, 2010 and applies to all licensed child care homes and centers in California. The beverage standards under the bill require:

- Clean and safe drinking water must be readily available throughout the day, including at all meal, snack, and play times.
- Only fat-free or low-fat (1%) unsweetened, plain milk for children two years of age or older.

(Continued on next page...)

- No more than one serving per day of 100% juice.
- Beverages with added sweeteners, either natural or artificial, are prohibited (not including infant formula or complete balanced nutritional products designed for children).

In terms of their own menus, 86% of the providers reported that low-fat or nonfat milk and no more than 4 oz of 100% juice (C.A. Assembly Bill 2084) were served during snack time, 92% of the providers reported that drinking water was available all of the time, and 89% reported that their menus adhered to the USDA guidelines all of the time. Moreover, 69% of the surveyed providers reported that all meals and snacks included a variety of fresh fruits, vegetables, whole grains and healthy beverages (see Table 3).

**Finding: Provider training for parents on nutrition and physical activities for obesity prevention is not as strong as other areas of the RENEW program.**

Seventy-five percent of providers informed parents on the state and federal nutrition guidelines for four-year-olds only 2 times or less per year, and 55% of providers informed parents on the benefits of healthy food and beverage choices on brain development two times or less per year.

Table 3. Frequency of Parent Training Topics

Parent Training	2 or less times per year		3 or more times per year	
	#	%	#	%
Parents are educated/ informed about provider’s food and beverage policies.	17	47%	19	53%
Parents are educated/ informed on state and federal nutrition guidelines for four-year-olds.	27	75%	9	25%
Parents are educated/ informed on the benefits of healthy food and beverage choices on brain development.	20	55%	16	44%
Parents are educated/ informed about the role of physical activity in developing motor skills, building connections with moving and learning, and promoting a positive attitude/ habits towards physical activity.	16	44%	20	56%
Parents receive resources and strategies to support children’s physical activity levels to meet the accrued 120 minutes per day (e.g. tip sheets, field trips, etc.).	13	36%	23	64%

Source: Nutrition and Physical Activity Checklist, February 2012

**Finding: On the pre-survey, teachers reported a high level of knowledge and awareness about nutrition, physical activity fundamentals, and the importance of having a health and wellness policy.**

Mean scores ranged from 3.23 to 3.58 on a 4-point scale. Results from the pre- to post- RENEW analysis reveals a slight growth in knowledge and awareness among teachers (see Tables 4 and 5). However, with the exception of knowledge about the types of food and beverages that enhance children’s brain development, and knowledge about the strategies for incorporating physical activity within daily routines, these changes were not statistically significant.

Table 4. Changes in Teacher Knowledge

Teacher Knowledge	PRE-Mean*	POST-Mean*	Change PRE-POST
I can state the United States Department of Agriculture (USDA)'s recommendations for the number of servings of fruits and vegetables preschool-age children should consume every day to maintain good health	3.35	3.47	0.12
I know the USDA's recommendation for the number of servings of whole grains preschool-age children should consume every day to maintain good health	3.23	3.33	0.10
I can state the USDA's recommendation for the number of servings and type of milk that should be served to preschool-age children with meals to maintain good health	3.42	3.44	0.02
I can explain the reasons for offering children a variety of fruits and vegetables in their diet	3.58	3.70	0.12
I know about the type of foods and beverages that enhance children's brain development	3.24	3.54	0.30**
I can state the recommendations for offering water to preschool children throughout the day	3.44	3.65	0.21
I know the National Association for Sports and Physical Education's recommendations for the amount of physical activity preschool-age children need every day to promote good health	3.36	3.60	0.24

\*On a scale of 1-4; where 1=Strongly Disagree and 4=Strongly Agree.

\*\*Change is significant at p-value <0.05.

Source: RENEW Pre-Survey, March 2011. RENEW Post-Survey, March 2012.

Table 5: Changes in Teacher Awareness

Teacher Knowledge	PRE-Mean*	POST-Mean*	Change PRE-POST
I can state some of the strategies for incorporating a variety of fruits and vegetables into the meals and snacks served to children in preschool	3.49	3.67	0.18
I can list strategies for incorporating physical activity within daily routines	3.53	3.74	0.21**
I can list a few reasons why having a Health and Wellness policy at my preschool is important	3.60	3.67	0.07
I can list a few reasons why it is important to keep parents informed about our Preschool's Health and Wellness policies	3.60	3.74	0.14

\*On a scale of 1-4; where 1=Strongly Disagree and 4=Strongly Agree.

\*\*Change is significant at p-value <0.05.

Source: RENEW Pre-Survey, March 2011. RENEW Post-Survey, March 2012.

**Finding: Results from the pre- and post- survey revealed that there was an increase in the percentage of sites that implemented practices related to educating parents.**

Specifically, there was an increase of 11% or more for the following practices: educating parents about the benefits of physical activity related to child development; encouraging parents to support their children in being physically active at home; and providing ideas to parents about how they could support their children in being physically active at home (see Table 6). Growths in these three program practices were statistically significant.

Other practices related to parental education that also experienced increases (although these were not statistically significant) were: educating parents about the benefits of healthy food and beverage choices (8% growth) and sharing culturally appropriate resources and strategies with parents to incorporate a variety of healthy food and beverages (6% growth). The practice of having appropriate hand-washing policies was implemented by almost all sites at the beginning of RENEW, yet this practice still experienced a 1% gain by the end of RENEW. Three practices showed a slight, although not statistically significant, decrease from pre- to post- RENEW. The three practices that decreased were: encouraging teachers to incorporate physical activity through the learning experiences to create a balance between physical and sedentary activities (1% decrease); encouraging teachers to include modified teacher-led physical activities, to accommodate children with limited mobility or physical disability (2% decrease); and encouraging staff to exhibit healthier behaviors, such as consuming healthy food choices, drinking water, and hand-washing, throughout their contact with children (3% decrease). Perhaps RENEW helped the providers to establish a more well-defined health and wellness policy for themselves, or perhaps RENEW helped the participating providers to hold themselves to higher health and wellness education standards from the start to the end of RENEW; in either case, teachers may not have needed as much encouragement and support by the end of the year because they were already participating in these practices. This could potentially explain the decrease in responses to these three “encouragement-focused” items.

Table 6: Program Practices

Program Practices	PRE % Yes	POST % Yes	% Change Pre-Post
Does your preschool program encourage staff to exhibit healthier behaviors such as consuming healthy food choices, drinking water, and hand washing throughout their contact with children?	97%	94%	-3
Does your preschool program have a policy for appropriate hand washing technique?	97%	98%	+1
Does your preschool program encourage parents to bring healthy food and snacks including more fresh fruits, vegetables, and whole grains for their children?	75%	77%	+2
Does your preschool program educate parents about the benefits of healthy food and beverage choices?	77%	85%	+8
Does your preschool program share culturally appropriate resources and strategies to encourage parents to incorporate a variety of healthy food and beverages including more fresh fruits, vegetables, and whole grains?	72%	78%	+6
Does your preschool program encourage teachers to incorporate physical activity through the learning experiences to create a balance between physical and sedentary activities?	97%	96%	-1
Does your preschool program encourage teachers to include modified teacher led physical activities to accommodate children with limited mobility or physical disability?	91%	89%	-2
Does your preschool educate parents about the benefits of physical activity related to child development?	78%	89%	+11*
Does your preschool program encourage parents to support their children in being physically active at home?	78%	91%	+13*

\*Change is significant at p-value <0.05.

Source: RENEW Pre-Survey, March 2011. RENEW Post-Survey, March 2012.

Teachers reported that they modeled healthy eating behaviors, incorporated physical activities throughout the day, and educated parents about making healthy nutrition and physical activity choices at home with moderate to high frequencies. Pre-test mean scores ranged from 2.93 to 3.95 on a 4-point scale. There were slight increases from pre- to post- test in the frequencies with which most practices took place, except for the use of

appropriate hand-washing techniques throughout the day, which stayed the same from pre- to post- RENEW (see Table 7). All items, except for modeling healthy behaviors and using appropriate hand-washing techniques, demonstrated statistically significant change from the pre- to post-survey.

Table 7: Frequency of Program Practices

Program Practices	PRE-Mean*	POST-Mean*	Change PRE-POST
Model healthy behaviors such as consuming healthy food choices, drinking water, and hand-washing throughout your contact with the children you serve	3.86	3.93	0.07
Use appropriate hand-washing techniques throughout the day	3.95	3.95	0.00
Encourage parents to bring healthy food and snacks including more fresh fruits, vegetables, and whole grains for their children	2.98	3.68	0.70**
Educate parents about the benefits of healthy food and beverage choices	3.12	3.51	0.39**
Share culturally appropriate resources and strategies with parents to encourage them to incorporate a variety of healthy food and beverages including more fresh fruits, vegetables, and whole grains	3.07	3.48	0.41**
Incorporate physical activity through the learning experiences to create a balance between physical and sedentary activities	3.70	3.88	0.18**
Encourage teachers to include modified teacher-led physical activities to accommodate children with limited mobility or physical disability	3.43	3.90	0.47**
Educate parents about the benefits of physical activity related to child development	2.93	3.51	0.58**
Encourage parents to support their children in being physically active at home	3.07	3.56	0.49**
Provide parents with ideas about how they can support their children in being physically active at home	3.07	3.51	0.44**

\*On a scale of 1-4; where 1=Never and 4=Very Often.

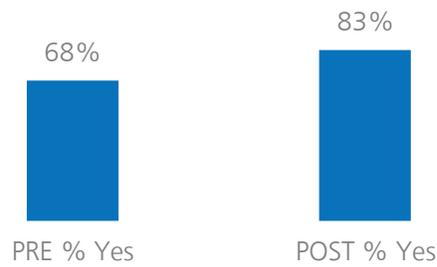
\*\*Change is significant at p-value <0.05.

Source: RENEW Pre-Survey, March 2011. RENEW Post-Survey, March 2012.

### Finding: Results from the RENEW pre- and post- surveys revealed changes in providers' health and wellness policies.

The pre-survey revealed that 68% of the providers had a formal health and wellness policy, defined as a written document that governs practices pertaining to the well-being of children. Post-survey results showed a 15% increase, with 83% of teachers reporting that their preschool had a formal health and wellness policy.

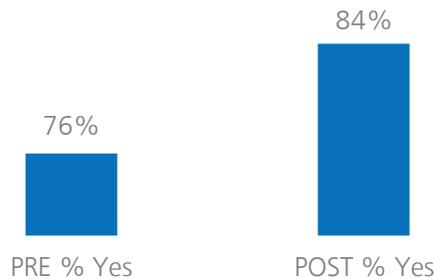
Figure 6. Providers With a Formal Health and Wellness Policy



Source: RENEW Pre-Survey, March 2011. RENEW Post-Survey, March 2012.

Results from the RENEW pre-survey revealed that 76% of the providers with a health and wellness policy educated parents on their policy. Post-survey results showed an 8% increase, with 84% of providers with a health and wellness policy reporting that they educated parents on their policy.

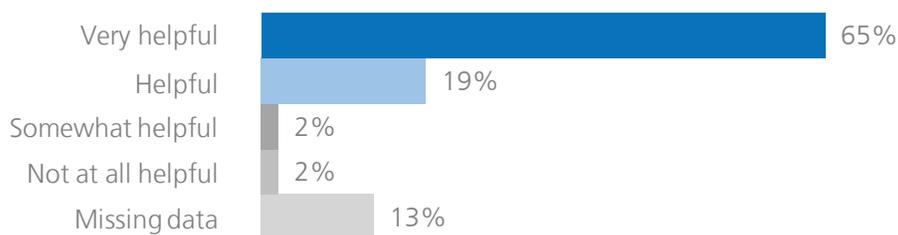
Figure 7: Providers Who Educated Parents on the Site’s Health and Wellness Policy



Source: RENEW Pre-Survey, March 2011. RENEW Post-Survey, March 2012.

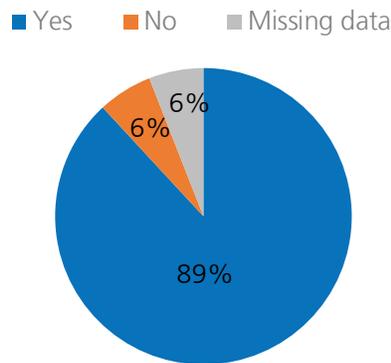
The post-RENEW survey asked teachers an additional set of questions that were not included in the pre-survey. These questions asked teachers about their initial thoughts on their trainings, resources, and experiences with implementing the RENEW practices. The majority of teachers (65%) found the toolkit very helpful in providing ideas and materials for nutrition and physical activities. Eighty-nine percent of RENEW participants reported having implemented activities learned at the training. Twenty-six percent of participants found it easy to implement the activities from the training in their classroom, and another 57% found it very easy. Providers found ideas for increasing physical activities most useful in implementing their health and wellness policy. The physical activities most often reported were: dancing to music, obstacle course, and “get moving/ get physical”. The Lakeshore choosy box, and specifically, the CD inside the choosy box were also reported as two of the most useful resources. See Appendix A at the end of this report for a combined list of activities that participants reported as useful.

Figure 8: Providers’ Helpfulness Ratings of Resource Kits for Providing Ideas and Materials for Activities



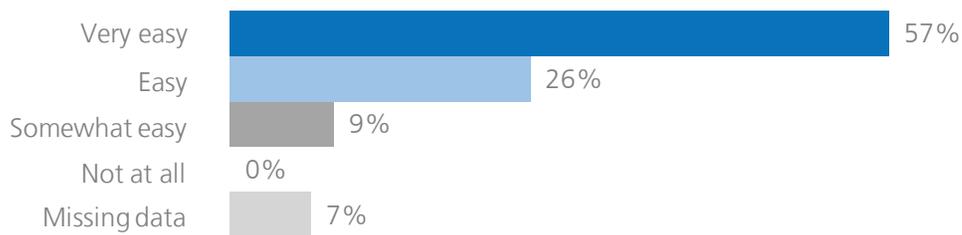
Source: RENEW Post-Survey, March 2012.

Figure 9: Providers Who Found Resource Kits Helpful in Planning Activities



Source: RENEW Post-Survey, March 2012.

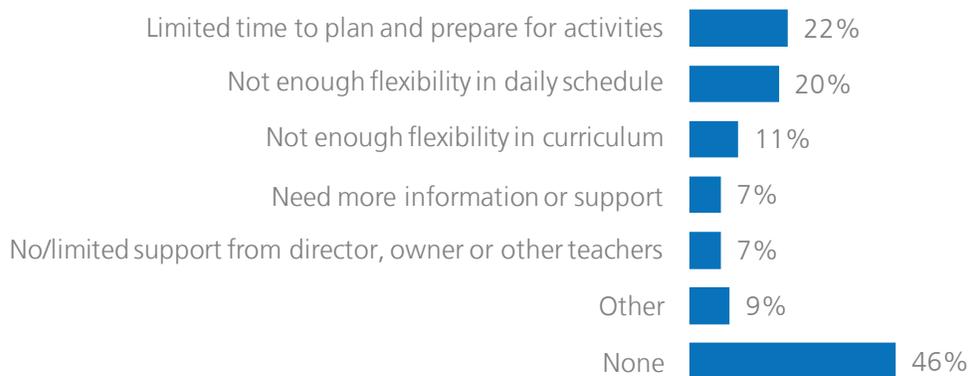
Figure 10. Providers' Rating of Ease of Implementing Activities from Training in Their Classrooms



Source: RENEW Post-Survey, March 2012.

When asked about the challenges they've encountered while implementing their preschool's health and wellness policy, 46% of teachers said they had no challenges. Time and scheduling appeared to be a moderate challenge among participating teachers. Twenty-two percent said they had limited time to plan and prepare for activities; 20% thought there was not enough flexibility in the daily schedule; and another 11% thought there was not enough flexibility in the curriculum. Lack of support was not a considerable challenge; only 7% thought they had no or limited support from the director, owner or other teachers, and another 7% thought they needed more information or support.

Figure 11: Challenges Encountered While Implementing a Health and Wellness Policy



Source: RENEW Post-Survey, March 2012.

**Finding: Parents recalled that at the start of RENEW, children chose to eat fruit and vegetables for snack or as part of a meal with moderate to high frequency, drank juice, and drank at least five glasses of water daily.**

Pre- to post-test analysis revealed a slight increase across all behaviors. Only the increase in choosing to eat fruits and vegetables for a snack was statistically significant. Changes regarding beverage choices were not statistically significant.

Table 8: Children’s Food and Beverage Choices

Children’s Choices	PRE-Mean*	POST-Mean*	Change PRE-POST
My child chooses to eat fruit for a snack or as part of a meal	3.78	3.84	0.06**
My child chooses to eat vegetables for a snack or as part of a meal	3.27	3.32	0.05**
My child drinks juice	3.46	3.49	0.03
My child drinks at least 5 glasses of water daily	3.57	3.59	0.02
My child drinks soda	2.20	2.21	0.01

\*On a scale of 1-5; where 1=Never and 5=Always.

\*\*Change is significant at p-value <0.05.

Source: Parent Survey, February 2012.

Findings revealed that the majority of parents (53%) described mealtime as "always enjoyable"; another 36% described mealtime as "usually enjoyable."

**Finding: Results from the parent survey also revealed that 90% of parents bought fresh fruit every week, 62% rarely or never bought canned fruit, and 71% rarely or never bought frozen fruit.**

Similarly, 90% of parents bought fresh vegetables every week, 53% rarely or never bought canned vegetables, and 53% rarely or never bought frozen vegetables.

Table 9: Parent Fruit Purchasing Frequencies

	Rarely/Never	Every Month	Every Week	Missing data
Fresh fruit	1%	7%	90%	2%
Canned fruit	62%	24%	9%	6%
Frozen fruit	71%	17%	6%	5%

Source: Parent Survey, February 2012.

Table 10: Parent Vegetable Purchasing Frequencies

	Rarely/Never	Every Month	Every Week	Missing data
Fresh vegetables	1%	9%	90%	1%
Canned vegetables	53%	31%	12%	5%
Frozen vegetables	53%	31%	12%	5%

Source: Parent Survey, February 2012.

**Finding: Mixed results were found from an assessment of parents’ knowledge of foods promoting healthy brain development.**

Parents were given a list of food and beverage items and asked to put a checkmark next to the foods that promote healthy brain development. Most parents checked tuna fish (81%), eggs (73%), and whole wheat bread (71%). Capri-Sun was checked by 4% of parents.

Table 11: Parents' Beliefs about Foods that Promote Healthy Brain Development

Food	% of Parents
Tuna fish	81%
Eggs	73%
Whole wheat bread	71%
Capri-Sun drink	4%

Source: Parent Survey, February 2012.

**Finding: Most parents reported that their children ate a variety of healthy foods. The most consumed foods included ice cream, 100% fruit juice, and chips.**

Parents were asked about the food and beverage choices their children made at home in the following food groups: grains, vegetables, fruits, milk and other dairy products (and alternatives), proteins, drinks, fats, and sweets. Table 13 displays results from the parent survey. Overall, cereal/grits, noodles/pasta, and white rice were the most consumed grain types. Carrots and potatoes were the most consumed vegetables. Apples, bananas, grapes and oranges were the most consumed fruits. Reduced-fat milk, cheese, and yogurt were the most consumed types of milk and dairy products (including alternatives). Fruit juice (100%) and water were the most consumed types of drinks. Chips were the most consumed type of fats and sweets.

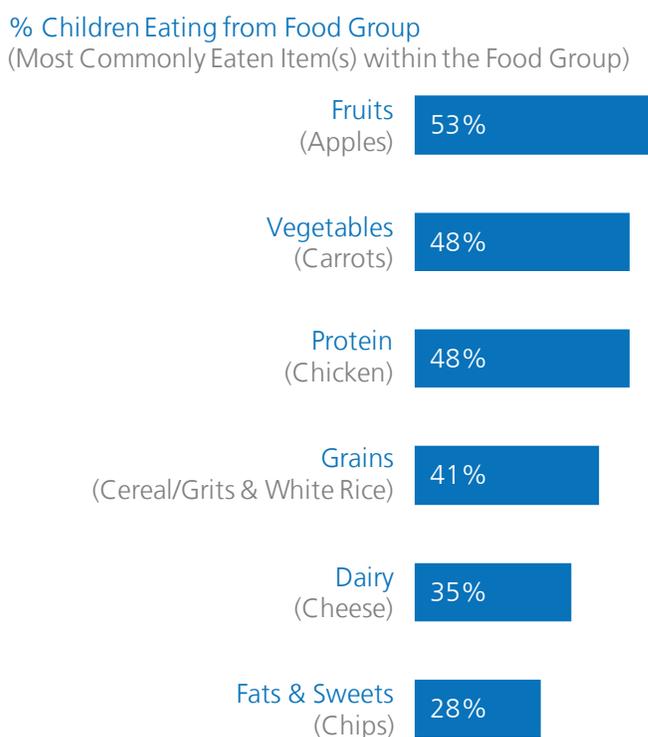
Table 12: Children's Food and Beverage Choices

Grains		Vegetables		Fruits	
77%	Noodles/pasta	78%	Carrots	90%	Apples
74%	Cereal/grits	70%	Potatoes	88%	Bananas
74%	White rice	63%	Broccoli	82%	Oranges
69%	Whole wheat bread	57%	Tomatoes	73%	Grapes
61%	Corn tortillas	56%	Corn	44%	Other fruit
36%	White bread	44%	French fries	39%	Berries
32%	Flour tortillas	42%	Green salad	37%	Pears
26%	Other grains	40%	Other vegetables	33%	Melon
23%	Brown rice	34%	Green beans	33%	Peaches
18%	Bagels	21%	Peas	8%	Grapefruit
18%	Rolls	18%	Greens (collard/spinach)		
16%	Whole wheat tortillas				
12%	Muffins				
Milk, Other Dairy Products and Milk Alternatives		Proteins		Drink	
84%	Cheese	96%	Chicken	96%	Water
80%	Yogurt	87%	Eggs	85%	Fruit juice (100%)
71%	2% milk (reduced-fat)	70%	Beans	31%	Fruit-flavored drinks
54%	Ice cream	59%	Beef/hamburger	24%	Soft drinks/Soda
32%	Chocolate milk	53%	Peanut butter/nuts	18%	Kool-Aid
19%	Whole milk	52%	Fish	17%	Other drinks
16%	1% milk (low-fat)	42%	Sausage/bacon		
11%	Other milk, dairy products	41%	Cold cuts/lunch meat	Fats and Sweets	
7%	Soy milk	39%	Turkey	52%	Chips
4%	Skim milk (non-fat)	23%	Pork	46%	Candy
4%	Flavored soy milk	10%	Other meat/proteins	36%	Cake/cupcakes
		7%	Tofu	18%	Doughnuts
				10%	Other fats and sweets
				6%	Pie

Source: Parent Survey, February 2012.

By averaging across all parent survey responses, we determined what the typical preschool child consumed (see Figure 2). Overall, 53% of parents surveyed reported that their child consumed some type(s) of fruit, 48% reported that their child consumed some type(s) of vegetable, 41% reported that their child consumed some type(s) of grain, 48% reported that their child consumed some type(s) of protein, 35% reported that their child consumed some type(s) of dairy product (or substitute), and 28% reported that their child consumed some type(s) of sweets and fats, during the week prior to the survey. Analysis of children’s drink(s) of choice revealed that water was the most widely consumed (96%), followed by 100% fruit juice (85%). The survey also revealed that fruit-flavored drinks, Kool-Aid, and soft drinks are consumed more often than milk (including whole, reduced-fat, low-fat, non-fat, chocolate, soy, and flavored soy), at 24% vs. 22%. These findings serve as a baseline which we can use to track changes in children’s food choices as we move forward with rolling out health and wellness programs across LAUP providers.

Figure 12: Children’s Food and Beverage Choices in the Last Week as Reported by Parents



Source: RENEW Parent Survey, February 2012.

**Finding: Parents recalled that at the start of RENEW, their children enjoyed playing active games or being active with a moderate to high frequency.**

Pre- to post-test analysis revealed a slight increase.

Table 13: Children’s Nutrition Choices and Physical Activity

Children’s Choices	PRE-Mean*	POST-Mean*	Change PRE-POST
My child enjoys playing active games (tag, ball, etc.) and/ or being active (dancing, playing at the park, etc)	4.56	4.70	0.14**

\*On a scale of 1-5; where 1=Never and 5=Always.

\*\*Change is significant at p-value <0.05.

Source: Parent Survey, February 2012.

This perceived increase in children’s physical activity is a positive finding. However, as promising as this change appears, parent survey results also indicate that very few parents are knowledgeable about the recommended 120 minutes of physical activity recommended for school-age children per day, and a few parents believe that physical activity limits growth and development and reduces a child’s ability to focus (see Table 14 below). Exploring the root of these misconceptions and dispelling them in a culturally sensitive manner may pose somewhat of a challenge for providers, and should be an area in which LAUP program staff and advisors offer additional support.

Forty-two percent of parents reported that preschool-age children should participate in 60 minutes of physical activity each day.

Table 14: Daily Amount of Time Parents Thought Preschool-Age Children Should Engage in Physical Activity

Minutes	% of Parents
30 minutes	24%
60 minutes	42%
90 minutes	17%
120 minutes	15%
Missing data	2%

Source: Parent Survey, February 2012.

**Finding: Parents reported that their children spend an average of 2.71 hours each day watching TV.**

The mode or most frequently reported number of hours was 2 hours (40% of parents reported). Parents further reported that their children spend an average of 1.74 hours each day on the computer or playing video games. The mode or most reported number of hours was 1 hour (36% of parents reported). These averages are skewed, as many parents misinterpreted the question (hours per day) and wrote numbers higher than 24; as a result, the average hours of TV and video games reported here should be interpreted with caution.

**Finding: Most parents reported that they encourage their children to be physically active.**

The most common ways parents encouraged physical activity were by playing with their children (82%) and by taking their children to the park (81%). Only 2% of parents reported that they did not have time or space to be physically active. See Table 15 for more results.

Table 15: Parents’ Encouragement of Physical Activity

Activity	% Parents
I take my child to the park	81%
I have my child participate in group activities or classes, such as soccer team, karate, dance class, baseball practice, etc.	28%
I play with my child	82%
I tell my child to go play outside	57%
I am physically active	32%
I have given my child toys that encourage movement such as, balls, hula hoop, a tricycle, etc.	76%
I do not have time or space for my child to be physically active	2%

Source: Parent Survey, February 2012.

**Finding: Most parents believed physical activity had positive effects on preschool-age children.**

Most parents think that physical activity affects young children in the following ways: Promotes mental health (74%); promotes learning and memory (75%); and reduces the risk for certain chronic diseases (65%). A few parents also believe that physical activity limits growth and development (8%) and that physical activity reduces a child’s ability to focus (6%).

Table 16: Parents’ Beliefs about Physical Activity

Effects on Young Children	% of Parents
Promotes learning and memory	75%
Promotes mental health	74%
Reduces the risk for certain chronic diseases	65%
Limits growth and development	8%
Reduces a child's ability to focus	6%

Source: Parent Survey, February 2012.

**Finding: Almost half of the parents surveyed (48%) did not attend parent workshops at their child’s preschool.**

Another 34% attended the Healthy Eating and Brain Development Workshop; 25% attended the Engaging your Preschooler in Physical Activity Workshop; and 9% attended other workshops. Other workshops attended included a workshop on the alphabet, a workshop on how to teach another language, parenting classes, and a workshop on transition to kindergarten. See Appendix B for a list of other workshops attended.

Table 17: Parent Workshop Attendance

Workshops	% Attended
I did not attend any workshops	48%
Healthy Eating and Brain Development	34%
Engaging your Preschooler in Physical Activity	25%
I attended other workshops. Please specify:	9%

Source: Parent Survey, February 2012.

Schedule challenges and timing were the challenges/barriers that prevented parents from participating in activities at their child’s preschool. Child care needs were reported as a challenge/barrier by 12% of the parents. Challenges that were not widely reported were: transportation needs (3%), language barriers (2%), lack of interest (1%), not knowing how to participate (5%), feeling unwelcome (1%), and feeling their opinions are not valued (less than 1%). An additional 12% of parents reported another type of challenge/barrier, including: “I didn’t know the dates of the workshops,” “My child was sick,” “I’m pregnant,” and “Sometimes I forget.” See Appendix C for a list of other challenges/barriers reported.

Table 18: Challenges/Barriers to Parent Workshop Attendance

Challenge/Barrier	% of Parents
I participate when I can	55%
Work and school schedules	39%
I need child care	12%
Other. Please specify*	12%
I am not sure how to participate	5%
I need transportation	3%
Staff at the program do not speak my language	2%
I am not interested in the activities or trainings	1%
I do not feel welcome	1%
My opinions are not valued	0.2%

Source: Parent Survey, February 2012. \*See Appendix B.

## Conclusion

Overall, the RENEW Pilot Project experienced some success. There was an increase, though small, in knowledge and awareness of nutrition fundamentals among providers, as evidenced through the training feedback form and post-survey results. Additionally, coaches and providers worked together to develop or revise their health and wellness policies, incorporating elements of the RENEW policy guidelines. Moreover, there was an increase in good health and wellness practices to support the implementation of the new health and wellness policies among preschool teachers. Lastly, and perhaps most importantly, there was an increase in children’s nutrition and physical activity practices as reported by parents.

However, there were limitations. We did not achieve 100% participation in the various aspects of the project. Teachers from some sites completed a pre-survey but did not complete a post-survey. Additionally, the nutrition and physical activity checklist was only completed once by 66% of the sites. A better approach would be to have program staff or coaches complete the checklist themselves and use it as an evaluation tool when they visit the provider sites at multiple times throughout the year. This way, analysis of policy adherence can be done over time.

## Recommendations for Scale Up

### Training Sessions

Providers found the training sessions to be very useful. The majority of providers implemented the activities learned at the trainings. The majority of providers also thought it was very easy to implement the activities from the training into the classroom. Most providers encountered no challenges while implementing their preschool’s health and wellness policy. Scale up efforts may consider having separate training sessions by type of provider (family child care centers, center-based providers, etc.).

### Resources and Materials

After the pilot year, it was decided to change the delivery of a toolkit (consisting of a variety of resources collected from the internet and developed by the project team) from CD format to a paper-based, binder format. This change was a favorable one. Providers found the toolkit very helpful in providing ideas and materials for nutrition and physical activities.

### Parent Workshops

Parent workshops were not well attended. Scheduling challenges and timing were the major barriers that kept parents from participating in activities at their child’s preschool. Parent participation is challenging for a significant number of parents who often work outside of the home when workshops are held. The project team should spend some time on discussing ways to increase parent participation at the workshops, or other strategies to infuse nutrition and physical activity information into the home. Few parents are knowledgeable about the 120 minutes of physical activity recommended for school-age children per day, and a few parents believe that physical activity limits growth and development and reduces a child’s ability to focus. Eliminating

these misconceptions may pose somewhat of a challenge for providers, and should be a topic on which the LAUP program staff and advisors offer support.

### **Impacts of Health Behavior Change**

Health behavior is a continuous process. As such, strategies encouraging providers to evaluate their sites' practices and move towards the various phases of policy development, implementation, and practice will need to be developed over time. Although it is too premature to tell if the changes in students' food, beverage, and physical activity choices will have any long-lasting effect, it is good to know the baseline information and establish short-term goals for the next year. Overall, students are making relatively good food choices and beverage choices. Children are choosing fruits and vegetables for snack or as part of a meal more often, and children are also enjoying playing active games or being active. Parents are also contributing to children's healthy food choices; 90% of parents surveyed buy fresh fruit and vegetables on a weekly basis. However, potato chip and candy consumption is high—for some children, it is equally as high as fruit and vegetable consumption. Additionally, most children spend 2 hours watching television and 1 hour on the computer every day. This information should be aggregated at the provider level, and then disseminated to each provider so that they can establish their own goals for increasing some behaviors or decreasing others.

### **Future Research Efforts**

Future research efforts could split the analysis by provider type to look for differences (if any) with regards to policy implementation, provider knowledge, parent knowledge, and experience. A "provider type" field could be entered into the data sets for quick analysis. This could capture helpful information for providing more customized support to providers moving forward. This could also help providers share successes with RENEW and learn from other providers of different types.

In the future, the parent survey should be conducted twice (once at the start of the year and once at the end of the year) for more accurate pre- and post-analysis. Moreover, the parent survey instrument itself could be better aligned to the toolkit and the RENEW policy.

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## Appendix A

The objectives of this evaluation were to describe the implementation of the RENEW program during its first post-pilot year, and to provide a policy analysis and an implementation analysis enabling reasoned and data-driven decisions when the program is further rolled out to preschools across L.A. County. The following research questions guided this study:

1. What were the characteristics of RENEW L.A. County?
2. How are providers being supported in adhering to the RENEW policy?
3. How do providers view the usefulness of the support provided?
4. How knowledgeable are preschool providers about nutrition and physical activity guidelines for preschool children?
5. How knowledgeable are parents about nutrition and physical activity guidelines for preschool children?
6. What is the self-perceived ability of teachers and parents to implement the RENEW policy of nutrition and physical activities with preschool children?

### Data Collection Instruments

A mixed methods approach was used to evaluate the impact of the RENEW Project.

*Pre- and Post-Surveys for Teachers.* Pre- and post-surveys were developed to measure changes in knowledge, awareness and practices of teachers who participated in the RENEW training. The pre-survey was administered to teachers immediately before the teacher training. The post-survey was emailed to teachers a month and a half after the teacher training. The post-RENEW survey asked teachers an additional set of questions that were not in the pre-survey. Seventy-nine teachers completed the pre-survey at the start of RENEW. Of those, 54 teachers completed the post-survey at the end of RENEW, reaching a response rate of 68%.

*Parent Survey.* The purpose of the parent survey was to assess the eating habits and physical activities of preschool children at home. The parent survey was administered only once towards the end of the year, but it did ask parents to think back to their habits and activities at the start of the year, in order to measure changes in healthy eating habits and physical activities. A total of 1,642 parents across 59 of the RENEW providers were surveyed in February of 2012.

*Policy Adherence Tool.* The purposes of the nutrition and physical activity checklist were to assess compliance with important aspects of health and wellness policies, and to measure progress on achieving health and wellness objectives through RENEW L.A. County. The form is aligned to the RENEW Nutrition and Physical Activity Policy, and all 12 applied policy guidelines were covered with at least one question on the checklist. Original plans were to have providers complete the same form twice a year, but in practice, the form was only completed once – in the Spring of 2012, near the end of the program. The Nutrition and Physical Activity Checklist was completed by 47 of the 71 providers—a 66% response rate was reached.

## Appendix B

### Detailed Tables

Summary of answers to post-survey question: Which activities did you find most useful in implementing your preschool's health and wellness policy?

Table 19: Most Useful Workshop Activities

Theme	Frequency
Physical Activities (e.g. jamming minute, dancing, circle mat exercises, obstacle course, etc.)	18
"N/A"	14
Choosy Kit (CD, plastic play food, balls, etc.)	12
"All"	4
How to teach parents about nutrition and physical activities	3
Other (gardening, healthy eating through arts and crafts, materials in general)	3
<b>Grand Total</b>	<b>54</b>

Summary of answers to parent survey question: Other workshops attended? [Open-ended]

Table 20: Other Workshops Attended

Theme	Frequency
"N/A"	1,508
Parenting/ Discipline Workshop	44
Physical Activity and Nutrition Workshop	22
Curricular Workshop (reading, math, literacy)	17
Transition to Kinder Workshop	13
Meeting/ Back to School/ Open House etc.	11
Other ("an activity workshop," "being teacher for a day," "online services," "opening doors," "school options," etc.)	11
Art/Craft Workshop	5
Child Safety Workshop	4
[blank]	4
Child Advocacy Workshop	3
<b>Grand Total</b>	<b>1,642</b>

Summary of answers to question about other barriers to participating in preschool activities:

Table 21: Parents' Challenges/Barriers to Attending Preschool Activities

Theme	Frequency
[blank]	1,411
"N/A" or NONE	81
Time Conflict/School/Work	59
Lack of Communication on Behalf of Provider	32
Childcare/Newborn at Home	20
Personal Illness/Pregnancy/Dependent's Illness	16
New to Provider	10
Other Person in Family Attended	4
Commute	3
Forgot	2
Language Barrier	2
No need/ No purpose	2
<b>Grand Total</b>	<b>1,642</b>