Dr. Rebecca Lee’s Sustainability via Active Garden Education (SAGE) program is a garden based physical activity and nutrition intervention for preschool aged children. SAGE uses a school garden as a metaphor for child development and engages children in interactive games, songs, and learning activities. SAGE focuses on improving physical activity, sedentary behaviors, fruit and vegetable consumption, reducing eating in the absence of hunger, and also encourages healthy behavior changes and parenting practices in parents.

Please describe the program and the identified needs for SAGE.

Research shows that in the first five years of life, habits and self-awareness are established (target age for this program is 3-4 years old), including eating and physical activity habits. Previous studies showed that young children are the least active during their time at the early care and education center (preschool), and there is a need to implement innovative strategies, like SAGE, to help young children to be more active during the early care and education center day to meet national guidelines for physical activity. Through SAGE, we are bringing community gardens to early care and education centers to help meet these national guidelines. Some have a garden in their center, but it may not be “working” for them in the way that they hoped. SAGE helps early care and education centers get existing, but not working gardens going again, and helps to create new gardens. All vegetables and fruit grown in the gardens are edible and safe for the children to eat. In the end, we aim to make SAGE, and its curriculum that meets accreditation standards and national guidelines, sustainable for other early care and education centers to adopt and implement. SAGE features physically active games, songs and dancing inside as well as direct interaction with the garden outside.

How and when will the program be implemented?

The SAGE curriculum follows a “see one, do one, teach one” style which means we (research team) will go in and teach the children the 12 sessions as teachers observe and learn the process and simple lessons as they should be taught. Teachers will then teach the 12 sessions as we demonstrated, and they will be able to teach other teachers how to deliver SAGE. We are hoping to start the first cohort early next year and a second in the fall of 2017. Recruitment should begin this fall with the help from our community partners and community advisory board. There are two “arms” to the study, the garden and a child safety curriculum. All early care and education centers will get a chance to try both arms. The garden focuses on Increasing physical activity and fruit and vegetable consumption while reducing sedentary behavior. The child safety focuses on helping kids learn how to be safe in a variety of settings, including home, school and community.

We will be inviting early care and education teachers and directors to participate in entrance and exit interviews to gain feedback on the curriculum, implementation, concerns and successes that they may face in order to make SAGE sustainable in their specific center. For this study, we will enroll 20 early care and education centers and about 30 children and families at each center to participate in SAGE. We will also be following children and families to see whether any of what is learned at the early care and
education center transfers to the home. We will measure children’s physical activity and eating and ask parents about what kinds of food they keep in their kitchens and what they themselves eat.

**Part of the Center for Health Promotion and Disease Prevention’s (CHPDP) mission is to work with community partners. What community partners and organizations are involved with SAGE? How will all partners, including CHPDP, benefit from this research and partnership?**

Our partners include the [Booker T. Washington Child Development Center, Inc.](#), right here in downtown Phoenix, and the [Head Start Programs’](#) director Kim Pollins. Ms. Pollins will help us to recruit early care and education centers in neighborhoods in south and west Phoenix. The Booker T. Washington Child Development Center, Inc. is an amazing partner for connecting SAGE to the community. The centers will receive technical support that includes garden implementation and instruction. Our Community Advisory Board (CAB) includes a people who run established community gardens in the area so they can help with the start-up and maintenance of the gardens.

Early care and education teachers and directors have told the research team that they would like “hands on” training and support for implementing guideline based programming, like SAGE. The “see one, do one, teach one” strategy helps to provide expert training about SAGE in the field, and helps centers understand what kind of SAGE information they can include in their reports or grants to help promote sustainability of SAGE. SAGE has been very popular with parents and communities and may draw interest for future families who may enroll their children.

SAGE includes a multidisciplinary team of faculty from the CHPDP and ASU. One of our co-investigators is Dr. Meg Bruening, nutrition professor at SNHP and other co-investigators from ASU, Nebraska (Drs. Paul Estabrooks and Jennie Hill) and Texas (Dr. Teresia O’Connor). Our consultants consist of people who have experience with “food deserts” and urban community gardens and Dr. Lucie Lévesque, from Canada, who has worked with indigenous population, physical activity, and nutrition using community participatory approaches. All of these people make for a diverse and talented team focusing on a vulnerable and high priority group in our community. The SAGE CAB brings a multitude of disciplines and specialties together to create a diverse group of experts, parents and advisors.