Adapting Nutrition Education for a Virtual Flipped Classroom

SUMMARY
Due to the effects of the COVID-19 pandemic, the CalFresh Healthy Living, UC (CFHL, UC) program has been faced with the need to adapt the delivery of traditional direct education to use virtual methods. One approach that has the potential to maximize live, virtual time with students is a flipped classroom model. In this model, static content is delivered through pre-recorded videos, leaving live session time free to engage in interactive activities and discussion with students. To meet this goal, the CFHL UCCE Central Sierra team has adapted the USDA Serving Up MyPlate curriculum for virtual delivery using a flipped-classroom approach. This curriculum is being piloted in the 2019-20 school year, and will be adapted as needed to meet the needs of students and educators.

BACKGROUND
The CFHL, UC program partners with schools and teachers to deliver research-based nutrition education at low-income schools in 32 California counties. With the closure of the state’s schools for an indefinite time due to the COVID-19 crisis, CFHL, UC staff have been tasked with finding ways to continue educating their communities. In the Central Sierra, the CFHL, UC program serves 30 schools in the counties of El Dorado, Amador, Calaveras and Tuolumne. In order to continue educating the community CFHL, UC is piloting an adaptation of the Serving Up MyPlate curriculum for online learning using a virtual flipped classroom format for 1st through 6th grade. This approach combines a pre-recorded video, hands-on homework assignments, and a live video call for each lesson. This is a new approach for the CFHL, UC program in California, and once piloted and finalized may create new opportunities to offer quality nutrition education virtually.

SOLUTION
In late March, 11 CFHL, UC Central Sierra staff members, supported by the local UCCE Nutrition, Family and Consumer Sciences (NFCS) Advisor, began to adapt a USDA nutrition education curriculum for a virtual flipped classroom format. In this structure, the core lesson content is presented by educators in engaging videos around 20-35 minutes long. Each video ends with an age-appropriate homework assignment and optional healthy recipe idea, to give students an opportunity to apply the material in a hands-on way. After students have time to watch a video lesson and complete at-home work, educators conduct a 30-50 minute virtual lesson with each participating class. This live, interactive video call provides an opportunity for the educator to review core lesson objectives, answer questions, and lead a discussion about the content. The CFHL, UC Central Sierra team selected the USDA Serving Up MyPlate curriculum to pilot this approach, because it provides a 3-lesson unit for each of three grade ranges (1st-2nd, 3rd-4th, and 5th-6th), allowing the team to offer lessons to a wide range of classes.

Working from home, the Central Sierra team divided responsibility for the 9-lesson curriculum, with each educator putting the content of one lesson in video format and administrative staff helping to edit, format and close-caption the presentations. Zoom was used to record video introductions and conclusions, and an animated PowerPoint template with slide narration was used to present lesson content. Team efforts were led by the Program Coordinator, who provided significant support in the areas of educational content and video creation, and also connected each educator with online trainings on video production. Final videos were approval by the NFCS Advisor, and are shared with participating teachers to disseminate to their classes. CFHL, UC educators have also prepared lesson plans to ensure core objectives are met during live classes.

OUTCOME
In a short period, the CFHL UCCE Central Sierra team adapted an entire curriculum for online learning. Over the 2019-20 school year, educators will pilot the curriculum with a number of champion teachers. The team and NFCS Advisor will evaluate how this approach works for students and teachers, and make modifications as needed in consultation with the CFHL, UC State Office. The process of creating this online content also allowed staff to improve their video production skills, which will be useful beyond the COVID-19 crisis in helping develop innovative programming approaches.